

Property in Virtual Worlds

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*Dissertation presented in partial fulfilment of the requirements for the degree of
Doctor of Laws at Stellenbosch University*



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December 2012

Declaration

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Wian Erlank, July 2012, Stellenbosch

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Summary

This dissertation analyses and investigates how virtual property functions inside virtual worlds. It also determines if, within that context, virtual property is similar to, or should be treated like real world property. The questions that are addressed include the following. What is the (real world) legal status of property in virtual worlds? Is it worthwhile to recognise and protect virtual property in real world law? Is it possible to recognise and protect virtual property in real world law, given the differences? Would recognition and protection of virtual property in real world law require or be restricted to instances where virtual property is or can be recognised as real rights?

The dissertation finds that there is a definable concept of “virtual property” as it is encountered in virtual worlds and there is a great degree of similarity between the function of property in virtual and real world systems. There are also sufficient justifications (social, economic and normative) to recognise virtual property as property. Even though the function of property is similar in both systems, the similarities are undermined by the absence, complete or almost complete, of real rights in virtual worlds. This creates a problem since, in real world law, real rights enjoy stronger protection than weaker personal rights. The first reason for this absence of real rights stems from the unique (and mostly uncircumventable) nature of game-code that removes the necessity to make all rights in virtual worlds real rights. The second reason relates to the fact that most virtual world rights are completely derived from and regulated by contract.

It is concluded that it is possible to recognise and protect virtual property by means of traditional private law property law (both Roman-Germanic and Anglo-

American), constitutional property law, and criminal law. While criminal law will fill some gaps left by the absence of real rights, the rest that are left are contractual rights. In certain circumstances, these contractual rights may be strong enough and in other cases they may require support from special legislation that strengthens weak personal rights and makes them into stronger property-like rights. In constitutional cases, these rights derive support from constitutional property law. However, in other circumstances recognition and protection will probably require recognition of real rights.

Opsomming

Hierdie proefskrif analiseer en ondersoek hoe virtuele eiendom in virtuele wêreld werk. Dit gee 'n oorsig oor die vraag of virtuele eiendom, in daardie konteks, vergelykbaar is met eiendom in die regte wêreld en dieselfde erkenning moet ontvang. Die volgende vrae word gestel en beantwoord. Wat is die (regte wêreld-) status van eiendom in 'n virtuele wêreld? Is dit die moeite werd om virtuele eiendom in die regte wêreld-regstelsels te erken en te beskerm? Is dit moontlik om virtuele eiendom in die regte wêreld te erken en beskerm, gegewe die verskille? Sal erkenning en beskerming van virtuele eiendom in die regte wêreld-regstelsels vereis dat, of beperk word tot gevalle waar virtuele eiendom geïdentifiseer of erken word as saaklike regte?

Die navorsing toon aan dat daar 'n bepaalde konsep van virtuele eiendom is soos wat dit in virtuele wêreld gevind word. Daar is ook 'n merkbare ooreenkoms tussen die eiendomstelsels in die virtuele en regte wêreld. Hierdie proefskrif bevind dat daar genoegsame regverdigingsgronde is (sosiaal, ekonomies, sowel as normatief) om regte wêreld-eiendomserkenning aan virtuele eiendom te verskaf. Alhoewel die funksie van eiendom dieselfde is in beide stelsels, word die ooreenkomste tussen hulle ondermyn deur die (algehele of amper algehele) tekort aan saaklike regte in die virtuele wêreld. Dit veroorsaak probleme, aangesien saaklike regte in die regte wêreld aansienlik sterker beskerming geniet as swakker persoonlike regte. Die redes vir hierdie tekort aan saaklike regte in 'n virtuele wêreld is tweeledig. Eerstens veroorsaak die unieke aard van rekenaar-kode 'n tekort aan saaklike regte binne die virtuele wêreld, aangesien die kode die bestaan van saaklike regte in meeste gevalle

onnodig maak. Tweedens word meeste van die regte wat verkry word en bestaan in virtuele wêrelde geskep en gereguleer deur middel van kontrak.

Daar word ook bevind dat dit moontlik is om aan virtuele eiendom erkenning en beskerming te gee deur middel van tradisionele privaatregtelike eiendom (beide Romeins-Germaans en Anglo-Amerikaans), konstitusionele eiendom en die strafreg. Strafreg kan egter slegs sekere gapings vul wat deur die tekort aan saaklike regte veroorsaak word. Die oorblywende regte sal egter persoonlike regte wees. In sekere omstandighede is dit moontlik dat hierdie persoonlike regte sterk genoeg sal wees, maar in ander gevalle sal dit nodig wees dat hul ondersteun word deur middel van die proklamasie van spesiale wetgewing wat swak persoonlike regte in die virtuele eiendom versterk tot eiendoms-agtige regte. In ander gevalle geniet hierdie regte beskerming deur die konstitusionele reg. In ander omstandighede sal dit egter verg dat erkenning en beskerming moet plaasvind deur die erkenning van saaklike regte in virtuele eiendom.

Acknowledgements

First and foremost I would like to thank God, my heavenly father. He provided me with everything that I have, the use of my intellectual faculties, and all the wonderful people who provide the infrastructure and form the foundation of my family, work and social life.

To my wife, Maryke, who managed to provide me with two beautiful children during the writing phase. She had to deal with my academic quirks, absentmindedness and the general side-effects of writing a doctoral dissertation. A thank you can never be enough, nevertheless, thank you! Without you, I would never have found my car-keys in the fridge.

To Andre van der Walt - my mentor, academic role-model and the reason I often had to calm down for a day or two... after receiving feedback on my chapters. Andre, thank you for not accepting anything that is less than perfect, never backing down and being the most inspiring teacher I ever had.

To the Duck, Bach, Rammstein, Mozart, the Offspring and the cast from Buffy (Once more with feeling) – thanks for providing the soundtrack to my research and late nights. I would also like to express my gratitude to the South African Research Chair in Property Law (sponsored by the Departement of Science and Technology (DST), administered by the National Research Foundation (NRF) and hosted by Stellenbosch University), for providing funding and infrastructure for my studies. To the University of Maastricht's Faculty of Law and the Ius Commune Research School, for hosting me during research stints in Europe and providing extra funding –

thank you. To the North-West University for their generous grant to help finalise my dissertation –thank you.

It is difficult to single out individuals, but in particular, I would like to thank my colleagues who had to listen to my theories, criticise my over-enthusiasm and temper my logic – especially those who understood what I was trying to say - Gustav Muller, Eveline Ramaekers, Bram Akkermans, Rogier Creemers and Ernst Marais. To all the rest of my colleagues that listened to presentations and gave feedback during conferences and workshops, both national and international – thank you.

I would like to conclude by thanking my mother, grandparents and in-laws as well as the rest of my family who supported me, believed in me and continue to encourage me with all my endeavours.

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Table of Contents

Declaration	i
Summary	ii
Opsomming	iv
Acknowledgements	vi
Table of Contents	viii
Chapter 1: Introduction	1
1 1 Outline of the research question and hypothesis	1
1 2 Methodology and qualifications	6
1 3 Overview of chapters	9
Chapter 2: Virtual Worlds	16
2 1 Introduction	16
2 2 The history of virtual worlds	17
2 2 1 Introduction.....	17
2 2 2 Text-represented virtual worlds.....	18
2 2 2 1 <i>Before the computer age</i>	18
2 2 2 2 <i>Multi-user dungeons (MUDs)</i>	22
2 2 3 Visually represented virtual worlds.....	28
2 3 Current and future developments in virtuality	43
2 4 What is a virtual world?	46
2 4 1 Introduction.....	46
2 4 2 Computer-moderated.....	47
2 4 3 Persistence.....	48
2 4 4 Environmental attributes.....	51

2 4 5 Interaction with the world.....	52
2 4 6 Participation of multiple individuals	54
2 4 7 Conclusion	57
2 5 Conclusion	58
Chapter 3: Rules, Regulations and Law in Virtual Worlds	60
3 1 Introduction	60
3 2 Code as law	64
3 3 User-created law	70
3 4 Power, control and executive lawmaking.....	74
3 5 Case law.....	90
3 5 1 Introduction.....	90
3 5 2 China	91
3 5 3 South Korea.....	94
3 5 4 The Netherlands	95
3 5 5 Conclusion	97
3 6 Contracts: EULAs and TOSs	98
3 6 1 Introduction.....	98
3 6 2 EULA of WoW and TOS of Second Life.....	103
3 6 2 1 <i>Introduction</i>	103
3 6 2 2 <i>Opening statements</i>	105
3 6 2 3 <i>License terms and real world regulation issues</i>	108
3 6 2 5 <i>Ownership and transfer issues</i>	109
3 6 3 Conclusion	115
3 7 Conclusion	117
Chapter 4: Should Virtual Property be Recognized and Protected as Property?	120

4 1 Introduction	120
4 2 The economy of virtual worlds	122
4 2 1 Introduction	122
4 2 2 Scarcity	125
4 2 3 In-game trading	128
4 2 4 Extra- or unsanctioned game trading	130
4 2 5 Taxation issues	131
4 2 5 Conclusion	136
4 3 Social interaction and addiction to virtual worlds	137
4 4 Justification for the recognition of virtual property	141
4 4 1 <i>Introduction</i>	141
4 4 2 <i>Locke</i>	144
4 4 3 <i>Utilitarian justifications</i>	157
4 4 4 <i>Personality justifications</i>	165
4 4 5 <i>Conclusion</i>	180
4 5 The problems of recognition and enforcement	182
4 6 The pitfalls of virtual property	188
4 6 1 Introduction	188
4 6 2 Uncertainty	190
4 6 3 Responsibility	197
4 6 4 The game conceit	201
4 6 5 Player resentment	202
4 6 6 Intellectual property	204
4 6 7 Conclusion	206
4 7 Conclusion	207
Chapter 5: The Virtual Property Concept	211

5 1 Introduction	211
5 2 The real world concept of property.....	212
5 2 1 Introduction.....	212
5 2 2 Different approaches to property: private and constitutional.....	213
5 2 2 1 <i>Introduction</i>	213
5 2 2 2 <i>Anglo-American tradition</i>	215
5 2 2 3 <i>Roman-Germanic tradition</i>	217
5 2 2 3 1 Private law.....	217
5 2 2 3 2 Constitutional law	223
5 2 2 4 <i>Conclusion</i>	229
5 2 3 Characteristics of things	231
5 2 3 1 <i>Corporeality</i>	231
5 2 3 2 <i>External to persons</i>	236
5 2 3 3 <i>Independence</i>	237
5 2 3 4 <i>Appropriability / Susceptibility to human control</i>	238
5 2 3 5 <i>Use and value</i>	238
5 2 3 6 <i>Conclusion</i>	239
5 2 4 Classification of things.....	240
5 2 4 1 <i>Introduction</i>	240
5 2 4 2 <i>Classification according to their relation to a person</i>	241
5 2 4 2 1 Non-negotiable things	241
5 2 4 2 2 Negotiable things	243
5 2 4 3 <i>Classification according to nature</i>	244
5 2 4 3 1 Corporeal and incorporeal things	244
5 2 4 3 2 Movable and immovable things.....	245
5 2 4 3 3 Divisible and indivisible things.....	247
5 2 4 3 4 Consumable and non-consumable things.....	248
5 2 4 3 5 Fungible and non-fungible things	248
5 2 4 3 6 Singular and composite things	249

5 2 5 Conclusion	251
5 3 The virtual world concept of property	253
5 3 1 Introduction	253
5 3 1 1 <i>Introduction</i>	253
5 3 1 2 <i>The three levels of virtual property</i>	256
5 3 1 3 <i>Is virtual property just a form of intellectual property?</i>	258
5 3 1 4 <i>Crossing the conceptual barrier</i>	265
5 3 2 The subjects and objects of virtual property	268
5 3 3 The characteristics of virtual property	272
5 3 3 1 <i>Introduction</i>	272
5 3 3 2 <i>Rivalrousness/ Excludability</i>	275
5 3 3 3 <i>Persistence</i>	278
5 3 3 4 <i>Interconnectivity</i>	280
5 3 3 5 <i>Secondary markets</i>	281
5 3 3 6 <i>Value-added-by-users</i>	283
5 3 3 7 <i>Conclusion</i>	285
5 3 4 The characteristics of virtual things	286
5 3 4 1 <i>Introduction</i>	286
5 3 4 2 <i>(In)corporeality</i>	287
5 3 4 3 <i>External to avatars</i>	288
5 3 4 4 <i>Independence</i>	290
5 3 4 5 <i>Appropriability / Susceptibility to avatar control</i>	290
5 3 4 6 <i>Use and value</i>	291
5 3 4 7 <i>Conclusion</i>	293
5 3 5 Classification of virtual things	295
5 3 5 1 <i>Introduction</i>	295
5 3 5 2 <i>Classification according to their relation to a (virtual) person</i>	295
5 3 5 2 1 <i>Negotiable things</i>	295

5 3 5 2 2 Non-negotiable things	296
5 3 5 3 Classification according to nature	298
5 3 5 3 1 Corporeal and incorporeal things	298
5 3 5 3 2 Movable and immovable things	299
5 3 5 3 3 Divisible and indivisible things	299
5 3 5 3 4 Consumable and non-consumable things	300
5 3 5 3 5 Fungible and non-fungible things	300
5 3 5 3 6 Singular and composite things	301
5 3 5 4 Conclusion	302
5 4 Conclusion	303
Chapter 6: Property Rights in Virtual Worlds	308
6 1 Introduction	308
6 2 Basic principles of the law of (virtual) things	310
6 2 1 Introduction	310
6 2 2 The principle of numerus clausus	311
6 2 3 The principle of absoluteness	315
6 2 4 The principle of publicity	320
6 2 5 The principle of specificity	323
6 2 6 The principle of transferability	325
6 2 7 The principle of abstraction	327
6 2 8 Conclusion	329
6 3 Property as rights	333
6 3 1 The theoretical distinction between real and personal rights	333
6 3 2 The classical model of property law	339
6 3 3 Ownership and limited real rights	346
6 3 4 Ownership and possession	348
6 3 5 Acquisition of property	353

6 3 5 1 <i>Introduction</i>	353
6 3 5 2 <i>Acquisition of real world property</i>	355
6 3 5 3 <i>Acquisition of virtual property</i>	357
6 3 5 3 1 <i>Introduction</i>	357
6 3 5 3 2 <i>Original acquisition in virtual worlds</i>	357
6 3 5 3 3 <i>Derivative acquisition in virtual worlds</i>	362
6 3 5 4 <i>Conclusion</i>	365
6 4 Conclusion	367
Chapter 7: Conclusion	372
7 1 Conclusion	372
7 2 Remedies for protection of virtual property	389
7 2 1 <i>Introduction</i>	389
7 2 2 <i>Private law remedies and protection</i>	393
7 2 2 1 <i>Introduction</i>	393
7 2 2 2 <i>Contractual remedies</i>	394
7 2 2 3 <i>Property remedies</i>	398
7 2 3 <i>General rules</i>	400
7 2 3 1 <i>Introduction</i>	400
7 2 3 2 <i>General rules</i>	401
7 2 4 <i>Conclusion</i>	407
Bibliography	410
Abbreviations	410
ARTICLES, BOOKS AND LITERATURE	414
CASES	451
<i>China</i>	451
<i>European Court of Human Rights</i>	451
<i>Germany</i>	451

<i>Netherlands</i>	451
<i>South Africa</i>	452
<i>United States of America</i>	453
LEGISLATION	454
<i>France</i>	454
<i>Germany</i>	454
<i>Ireland</i>	454
<i>Italy</i>	454
<i>Netherlands</i>	454
<i>Scotland</i>	455
<i>South Africa</i>	455
<i>Switzerland</i>	456
<i>United States of America</i>	456
INTERNATIONAL CONVENTIONS AND INSTRUMENTS	457

Chapter 1: Introduction

1 1 Outline of the research question and hypothesis

The field of virtual property¹ is still relatively unexplored in academic literature. Even if people have heard about it, their concept of it is often unformed, imprecise and mostly out-dated. Although one encounters the concept of “virtual property” often enough in academic literature, there seems to be no proper definition of, or consensus about its meaning. Virtual or online property law is often seen as a branch of IT and IP law.

While virtual property includes well-known intangibles like domain names and email addresses,² the concept also refers to property that only exists inside virtual worlds.³ This type of virtual property is a common feature of modern multiplayer

¹ For a concise introduction to the concept of virtual property see Erlank W “Lecture: Introduction to Virtual Property” 2009 *SSRN* at <http://ssrn.com/abstract=1491118> (10 Oct 2010). See in general Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102; Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161; Deenihan KE “Leave those Orcs alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51; Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74.

² See Van Erp JHM “Servitudes: The Borderline Between Contract and (Virtual) Property” in Van Erp JHM & Akkermans B *Towards a Unified System of Land Burdens* (2006) 1-9 at 4; Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049, 1055.

³ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1058-1064; Lastowka FG and Hunter D “The Laws of Virtual Worlds” (2004) 92 *CLR* 1-74 at 29.

internet based virtual worlds.⁴ Although there are various levels on which one can perceive virtual property,⁵ the focus in this dissertation will be on the intra-virtual world level. The virtual property found in virtual worlds is usually created from computer code⁶ and fulfils the same function in the virtual world that real property institutions do in the real world.⁷ For example, a virtual chair is used to seat a virtual person.⁸

For the purpose of this dissertation, the term “virtual property” will mostly be used to refer to the objects of virtual property as they are found inside a virtual world.⁹ These objects are the items that players encounter and use in interaction between

⁴ For a discussion about the interconnected and multiplayer elements of virtual worlds see chapter 2 below at 2.4.

⁵ Such as intra-virtual world, extra-virtual world or cross-border between the virtual and real worlds.

⁶ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049; Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184 at 150. For a discussion about code-as law see chapter 3 below at 3.2.

⁷ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049. See in general: Erlank W “Lecture: Introduction to Virtual Property” 2009 *SSRN* at <http://ssrn.com/abstract=1491118> (10 Oct 2010).

⁸ This example can be enhanced by visualizing a virtual folding chair that is placed next to a virtual wrestling ring. This virtual chair would be used by one virtual wrestler, in a virtual wrestling match, to hit his opponent over the head. Hence, form follows function.

⁹ As mentioned above the term “virtual property” has many other meanings as well. See in general the discussion about various objects of virtual property: Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049, 1052; Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *California LR* 1-74 at 29. Also see the discussion in chapter 5 below at 5.3.

themselves, their avatars¹⁰ and the virtual world. One category of the objects of virtual property includes movable things, or rather movable (in)tangible virtual items.¹¹ Other categories include (amongst others) virtual immovable property like houses, castles and land. In certain virtual worlds, even slaves are regarded as the property of the player.¹² Even more challenging from a real world property perspective is the fact that a player's avatar could also be defined as an object of a property right.¹³

The relevance of this field of property law becomes apparent when one realises that virtual property ownership has far-reaching consequences from both an

¹⁰ An avatar is the player's virtual body representation inside the virtual world, otherwise also known as the player's character. See: Castronova E "Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier" (2001) *No 618 CESifo Working Paper* 2001 at <http://papers.ssrn.com/abstract=294828> (20 May 2009) 1-40 at 3.

¹¹ These would include objects such as chairs, sneakers, clothing, cars and almost any other type of object that one would find as a virtual (in)tangible object to its real world counterpart. In order to appreciate the diversity of virtually tangible objects that are created, used, traded and sold in virtual worlds, see the online marketplace in *Second Life* Linden Lab "Second Life Marketplace" 2011 *Second Life Marketplace* at <https://marketplace.secondlife.com> (10 Oct 2011).

¹² For example, *Second Life* contains an area called Calana Mount where players can (amongst the usual available occupations) act as slaves or slavers: Hsu C "Virtual World, Real College Class" 2008 *Las Vegas Sun* at <http://www.lasvegassun.com/news/2008/apr/07/virtual-world-real-college-class/> (10 Oct 2011). There are also players participating as willing sex-slaves for other players in *Second Life*: Wagner M "Sex in Second Life" 2007 *InformationWeek* at <http://www.informationweek.com/news/199701944> (10 Oct 2011).

¹³ See Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *California LR* 1-74 at 51-71 where they deal with the issue of recognition of personal rights of avatars as cyborgs in both the virtual and real worlds.

economic and a social viewpoint.¹⁴ Virtual property is especially important from an economic perspective¹⁵ since owners¹⁶ of virtual assets have control over and derive financial interest from them.¹⁷ Due to this fact, a proper understanding of how ownership in virtual property can be acquired and what the nature of rights in virtual property is has become relevant to the practice of the law of property.

¹⁴ See in general: Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *California LR* 1-74.

¹⁵ This issue has been discussed quite extensively in the literature about virtual property. See in general: Castronova E “On Virtual Economies” (2003) 3 *The International Journal of Computer Gaming Research* at <http://www.gamestudies.org/0302/castronova/> (22 May 2009). See also: Castronova E “Real Products in Imaginary Worlds” 2005 *Harvard Bus Rev* 20-22; Castronova E “The Right to Play” (2004) 49 *NYL Sch L Rev* 185-210; Castronova E “Virtual World Economy: It’s Namibia, Basically” 2004 at http://www.terranova.blogs.com/terra_nova/2004/08/virtual_world_e.html (24 August 2008); Castronova E “Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier” (2001) No 618 *CESifo Working Paper* 2001 at <http://papers.ssrn.com/abstract=294828> (20 May 2009) 1-40; Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *California LR* 1-74 at 9; Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184 at 149; Pollitzer B “Serious Business: When Virtual Items Gain Real World Value” 2007 *SSRN* at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51.

¹⁶ Vacca discusses two models of ownership used in virtual worlds. The first refers to the so-called traditional model of ownership where the developer of a virtual world automatically becomes or stays the owner of all property inside the virtual world. The second model he calls “user-retained ownership”, which leaves ownership of user-created content in the hands of the player and not the developer. See Vacca R “Viewing Virtual Property Ownership Through the Lens of Innovation” (2008) 76 *Tenn L Rev* 33-64 at 42-44.

¹⁷ This correlates with the phenomenon that most of the largest virtual worlds that are commercially run tend to follow the model of ownership where the developer retains all ownership inside the virtual world. See in general Vacca R “Viewing Virtual Property Ownership through the Lens of Innovation” (2008) 76 *Tenn L Rev* 33-64 at 42-44.

The aim of this dissertation is to analyse and investigate how virtual property functions inside virtual worlds and to determine if, within that context, virtual property is similar to, or should be treated like, real world property. At first glance, the research question for this dissertation seems to be quite basic. What is the (real world) legal status of property in virtual worlds? However, several secondary questions need to be addressed in order to fully comprehend and answer the intricacies of the primary research question. Is it worthwhile to recognise and protect virtual property in real world law? And, assuming that it is worthwhile, is it possible to recognise and protect virtual property in real world law, given the differences between the real world and virtual worlds? Finally, given the importance of real rights in real world law, would recognition and protection of virtual property in real world law require or be restricted to instances where virtual property is, or can be recognised as a real right?

My hypotheses are the following. Although virtual property does not enjoy much recognition or protection in real world law, it will probably be worthwhile to recognise and protect virtual property in real world law due to the growth and value of property and property-like interests in virtual worlds. In some cases it will be easier (and in others more difficult) to recognise and protect virtual property because of the different characteristics of virtual and real world property. In real world law, real rights enjoy stronger protection and therefore the focus is mostly on the creation and acquisition of real rights, but virtual property seems mostly to be based on contract, which gives rise to personal rights that are usually not protected so strongly. Recognition and protection will therefore possibly require recognition of real rights,

which may not always be possible. One of the research aims of this dissertation is to determine whether doing so is feasible and necessary.

1 2 Methodology and qualifications

The topics of virtual property and virtual worlds are relatively new and this research aims to provide an exploratory and descriptive account of virtual worlds, virtual law and virtual property. I do not cover all aspects of virtual property, but rather underline its importance as a growing field of research and an emerging trend. I make use of a comprehensive literature study of available academic and peer reviewed material as well as popular media sources. Due to the dynamic nature of virtual world scholarship, most of the sources that are used in this research are electronic sources, articles from websites and documentation taken from the virtual worlds themselves. There is not a lot of case law that deals with virtual world and virtual property issues and to date, there has only been one relevant case in a western legal system that has dealt directly with the recognition of virtual property. As a direct result of this paucity of case law, combined with the rapidly developing and constantly changing nature of the field of law, many of the questions raised in this dissertation remain open-ended. Case law is discussed when and where it deals with virtual property or has a direct bearing on the questions at hand. In many instances there are no definitive answers to the questions that surround virtual property. However, I attempt to provide answers where possible, and proffer suggestions as to how the area could develop in the future.

In order to discuss and answer the research questions, I will first consider whether there are sufficient reasons, of whatever kind, to recognise and protect virtual property. I will analyse what virtual property is and how it functions, and compare it with real world property. I will establish whether recognition and protection of virtual property would require recognition of real rights and whether that is possible, given the differences between the real world and virtual worlds.

I intend to undertake some comparative analysis. However, the study undertaken here does not comprise of a fully-fledged legal comparative study dealing with all the intricacies of the chosen legal systems. Rather, certain very pertinent questions and problems are posed and discussed against the backdrop of the general descriptive account of virtual property in various jurisdictions. Although some use is made of legal comparative methodology, it is tailored and adapted for purposes of this research as and when needed. The fact that one is working with a virtual world automatically makes the research comparative, since one instinctively compares the virtual world with the real world, but in addition to that I want to compare the way in which particular aspects are dealt with in various jurisdictions to enrich the comparison with the virtual world situation.¹⁸ Due to the international nature of virtual

¹⁸ For more information about the comparative nature of virtual worlds see Kocikowski M “Utopia’s Beachfront Property” at http://bibliotecavirtual.clacso.org.ar/ar/libros/raec/ethicomp5/docs/htm_papers/37Kocikowski,%20Mikolaj.htm (22 May 2009); Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51at 2; Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184;

property, spanning cyberspace and ignoring traditional national borders, legal comparison is based on criteria that are as universal as possible. In terms of general comparative work, I intend to refer to the real world legal systems of South Africa, the USA, Germany, the UK and the Netherlands, in various contexts. These systems provide the real world counterpart to the comparison with virtual world property. In most instances, the South African property system is used as the starting point, which is analysed with reference to several other real world legal systems. The foreign systems referred to include the USA, Germany, the UK and the Netherlands. The USA's common law system was chosen because it is the most advanced legal system in terms of dealing with IT law issues and since most of the available research material dealing with virtual property originates there. The comparative elements referred to furthermore provide examples from two common law (USA and UK) and two civil law (Germany and Netherlands) systems, which are suitable for comparative purposes. In instances where these real world systems have similar features, or where it is not necessary to compare them to each other, their common features are referred to more generally in comparison with the virtual world counterparts.

Dibbell J *My Tiny Life: Crime and Passion in a Virtual World* (1999) 60; Bainbridge WS "The Scientific Research Potential of Virtual Worlds" (2007) 317 *Sci* 472- 476.

The comparative analysis in this context adopts a special character because of the two virtual worlds that are discussed. The virtual worlds that are used in the analysis include two main worlds representing the two main types of virtual world systems, namely those aimed at entertainment (such as *World of Warcraft*) and those aimed at social interaction (such as *Second Life*). Further systems are used for comparison only by looking at specific aspects identified in the two main systems.

I will not discuss delictual or enrichment remedies because this dissertation is focused exclusively on property issues.

Lastly, there is an important distinction between virtual property law and intellectual property law. They are not the same thing and virtual property law is not a part of intellectual property law. While there is some minor overlap between the two fields with regard to intellectual property aspects, these account for a minor part of the field of virtual property law. This issue is addressed in more detail in the course of the dissertation.

1 3 Overview of chapters

Chapter two serves as an introduction to the field of virtual property by providing the background information needed to understand the phenomenon of virtual worlds. This chapter starts with a brief history of virtual worlds. The historical foundations of virtual worlds demonstrate the fact that virtual worlds are an important social manifestation and should receive serious academic attention. The growth and development of these worlds have accelerated to such an extent that it has become

impossible to ignore them. After discussing the history and development of these worlds, the concept of a virtual world is defined by breaking down a definition of virtual worlds into the *essentialia* or base components of which it comprises. This narrows down the concept of a virtual world and provides a normative description against which one can judge and compare various virtual worlds.

Chapter three starts with an analysis of the concept of virtual law.¹⁹ In order to understand how virtual worlds function, it is necessary to investigate and discuss how virtual worlds make use of rules, regulation, legal systems and laws to contribute to the proper functioning, internal governance and interaction with the real world. This background leads on to the analysis of “virtual property”. As in the real world, virtual worlds are also subject to the phenomena of rules, regulations and legal norms. This chapter explores how laws function inside virtual worlds. For purposes of this discussion, I initially focus on the phenomenon of in-world legal rules, why they are needed and where they come from. I then move on to the interaction between the real world legal system and the virtual world. Virtual law is considered from two perspectives, namely that of the developer and that of the player. Both parties have valid concerns regarding their vested or perceived interests and both want them protected via some (legal) mechanism.

The virtual world’s legal system has to have some foundation, usually in the sources of virtual law. In the real world the sources of law are derived from a

¹⁹ For a general discussion of the field of virtual law see chapter 3 below.

collection of (depending on the specific legal system and country) common law, legislation, judge-made law, civil codes, constitutions, customary law and case law.²⁰ Compared to the large number of possible legal sources in the real world, the sources of virtual-world laws are more restricted. The first source of virtual law discussed in this chapter is the binary computer code that forms the basis of the virtual world.²¹ The second source of virtual law is the customary law that develops outside of the developer's influence between the players themselves. Thirdly, I discuss the need for an in-game legal system and how this affects both developers and players with regard to power, control and executive law-making inside a virtual world. This is illustrated by a number of real world court cases that deal with the concept of virtual property. The final and most important source of virtual law is the contract that developers force players to enter into before they may participate in a virtual world. These contracts are usually manifested in so-called "End User Licence Agreements" (EULAs) and "Terms of Service" (TOSs).²² I analyse parts of the EULA

²⁰ I only discuss western democratic legal systems for purposes of this study.

²¹ For a discussion on computer code and its effects on the laws of virtual worlds see chapter 3 below at 3.2.

²² Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 177. See also Glushko B "Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds (2007) 22 *Berkeley Tech LJ* 251-275 at 252; Pollitzer B "Serious Business: When Virtual Items Gain Real World Value" 2007 *SSRN* at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 19, 22; Kunze JT "Regulating Virtual Worlds Optimally: The Model End User License Agreement" (2008) 7 *NW J Tech & Intell Prop* 101-118 at 103. Denapolis also gives an interesting description of how the legal relationships in virtual worlds work by analysing EULAs and various cases: Denapolis K "Real

of *World of Warcraft (WoW)* to illustrate how the virtual world is operated on a contracts-based rights system and briefly touch on the property aspects as and where they arise.

Chapter four deals with the question of whether virtual property should be recognised and protected as property. To answer this question, I begin the chapter by discussing the economic implications that the existence of virtual worlds has for the real world. The economies of virtual worlds are a very important feature of most virtual worlds due to a number of factors that are discussed in the chapter. This leads into a discussion of some of the social issues that are connected with virtual worlds. The addictive nature of online gaming and participation in virtual worlds is specifically discussed. Following on from this, I focus on three normative justifications that are used to assert property claims in the real world and apply these to the virtual world situation. These are the justifications in terms of Lockean labour theory, utilitarian and personality justifications. The discussion of these three normative accounts provide a foundation for accepting that virtual property could and should be recognised as property. I then discuss some of the problems that can be encountered if one accepts that virtual property should be recognised and protected as property in the real world. I conclude this chapter by looking at the so-called “pitfalls of virtual property”, where a number of arguments for and against the

Concerns in Virtual Property” 2005 *SSRN* at <http://ssrn.com/abstract=1154234> (10 Oct 2009) 1-39 at 10.

recognition of virtual world property are considered together with the associated problems one might encounter when dealing with virtual worlds.

Chapter five deals with the recognition and possible protection of virtual property. The chapter investigates if and how one can apply real world legal doctrine, classification and characterisation of property to the virtual world. If one accepts the conclusion of the previous chapter that virtual property should be protected, can it be done in real world legal systems that focus on tangible property, and how? To answer this, I divide the chapter into two parts. In the first part, I deal with the real world concept of property to determine what “property” means. This is done by examining the narrow and wide approaches to the property concept in the Anglo-American and Roman-Germanic legal traditions, as well as constitutional property law. I also discuss the problematical issue with the real world classification of a thing as something that must be corporeal or tangible. I then move on to the real world characteristics and classification of things to illustrate how things are doctrinally dealt with in the real world and to facilitate comparison with virtual things in the following section.

In the second part of the chapter I cover similar ground, but from the perspective of virtual property. I discuss some of the problems that are encountered when dealing with the concept of virtual property and various ways in which one can solve these issues. I then look at the different levels where one can perceive property and according to which the property concept will change contextually. This is followed by a brief discussion of why virtual property should be seen as being discrete from intellectual property. The problem of dealing with virtual property as a tangible-

intangible is addressed in the next section that deals with the crossing of the conceptual barrier. After discussing the subjects and objects of virtual property, I look at the characteristics of virtual property as they have been identified in the literature with a specific Anglo-American focus that draws an analogy between real world and virtual world property. This is followed by the application of the characteristics and classification of real world things to virtual things. This is done to determine whether virtual things can be classified in the same way as real world things.

Chapter six focuses on property rights as they are encountered in virtual worlds. This chapter starts with a discussion of the basic principles of property law in the real world.²³ These real world principles are then applied to the virtual world to ascertain whether and to what extent they apply in virtual worlds. Thereafter the discussion moves on to the topic of property as rights. While the focus in the previous chapter was on property as the object of a right, this chapter deals with property rights and the question of how they relate to and can be applied to virtual worlds. A big debate in the field of virtual property law centres on the type(s) of right(s) that attach to virtual property. Are these rights personal or real? Are they proprietary or contractual? It also ties in with the discussion in chapter three about the laws of virtual worlds. A number of tools are discussed that could help determine whether a particular right is personal or real. The discussion then moves on to an investigation of the question whether and how the real world concepts of ownership and limited

²³ These are the principles of *numerus clausus*, absoluteness, publicity, specificity, transferability and abstraction.

real rights, as well as ownership and possession, are encountered and dealt with in the virtual world. The acquisition of virtual property is used as a concrete illustration of how property rights operate in virtual worlds.

Chapter seven contains the conclusions from the previous chapters and provides an overview of the remedies and protection mechanisms that are available to parties who interact with, own or possess virtual property. The question of when to protect virtual property interests is discussed and some general rules are provided as tools for dealing with this difficult subject. The chapter concludes the dissertation.

Chapter 2: Virtual Worlds

2 1 Introduction

In this section, the assumption is made that all virtual worlds are forms of online games. This need not be the case, as the virtual world of *Second Life* is much more of an online virtual social interaction environment than a game. However, in many cases people will still see such environments as some form of game because they view its use as a recreational activity. Flight simulators that are used to train airline or military pilots are examples of virtual worlds that are not games. These virtual worlds are based on the physical world and are usually made as realistically identical to the actual environment as possible. Of course, it is often the case that a virtual world is created to be entirely dissimilar from the real world in order to give an escapist element to the virtual world.

To facilitate an understanding of what is meant when someone talks about a virtual world; this chapter will start with a brief history of virtual worlds. The historical foundations of virtual worlds demonstrate the fact that virtual worlds are an important social manifestation and should receive serious academic attention. The growth and development of these worlds have accelerated to the extent that it has become impossible to ignore them.

After discussing the history and development of these worlds, I will define the concept of a virtual world by breaking down a definition of it into the *essentialia* or base components of which it comprises. This will narrow down the concept of a

virtual world and provide a normative description against which one can judge various virtual worlds.

2 2 The history of virtual worlds¹

2 2 1 Introduction

A full history of virtual worlds is beyond the scope of this dissertation, but a brief overview should help to put the current virtual worlds into perspective. It illustrates how the development of these worlds has promoted new social structures and how it eventually leads up to the notion of virtual property.² In addition, it is necessary to

¹ The following section is loosely based on Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 14-29. Lastowka and Hunter’s article about “The Laws of the Virtual Worlds” is *the* seminal article that had the most influence on my own research as well as most of the articles that followed after its publication. Although the volume of literature dealing with virtual worlds has started to increase, almost all of the available academic discussions are based on this article and in most instances do not offer any new insights apart from reiterating the content of the original. For this reason “The Laws of the Virtual Worlds” is constantly used as primary source of authority throughout this dissertation. Where other available literature diverges significantly from or contributes to the content of “The Laws of the Virtual Worlds”, it will be included in the references.

² For more details about the history of these worlds and the development of computer games in general, the following sources could be helpful: Juul J “A History of the Computer Game” 2001 at <http://www.jesperjuul.net/thesis/2-historyofthecomputergame.html> (20 May 2009); Juul J *A Clash Between Game and Narrative* (2001) Copenhagen: Institute of Nordic Language and Literature, University of Copenhagen; Kent S “Alternate Reality: The History of Massively Multiplayer Online Games” *AMD.com* at http://www.amd.com/us-en/Processors/ProductInformation/0,,30_118_9485_9488%5E9563%5E9599%5E9793,00.html (20 May 2009); Cuciz D “The History of MUDs” 2001 *Gamespy* at <http://archive.gamespy.com/articles/january01/muds1/index3.shtm> (20 May 2009);

understand the social and technological forces that led to the creation of virtual worlds before one can understand the legal framework of virtual worlds.³

The historical development of virtual worlds is divided into two broad sections. These sections are the initial text based and later visually represented virtual worlds. It is argued that the concept of virtual worlds as they are known today stems directly from the tradition of storytelling. This oral tradition later resulted in more permanent stories that were written down and became the foundation for the text-based virtual worlds. Eventually, as computing capabilities increased, it became possible to represent these text-based virtual worlds in a visually representative manner. This is also the modern way in which virtual worlds are represented. These differences and the developments that led to the modern virtual world are discussed in the following sections.

2 2 2 Text-represented virtual worlds

2 2 2 1 Before the computer age

The story of virtual worlds is the one of storytelling itself. The first virtual worlds would have been the ones conjured up by the spoken word and myths passed on

Fuchs M "The History of Computer Games - From Spacewar to Tournament" *Mathias Fuchs Creative Technology* at http://creativetechnology.salford.ac.uk/fuchs/modules/game_design/game_design_history.htm (20 May 2009).

³ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 14.

from generation to generation via word of mouth. The world was described by the storyteller, but it was created in the minds of those who listened to the stories and imagined the world. As such, the audience populated their virtual worlds with the intimately familiar imagined people, places and circumstances of myth and folklore. As the orator described it, the listeners created the world as a personal reality by making use of their imagination. When this mode of storytelling evolved it was eventually possible to transfer these virtual worlds onto a fixed medium.

The ability to put word to paper led to creation of the first type of persistent virtual worlds. Once reduced to paper, these worlds became independent of a storyteller and could survive the ravishes of time, as well as the risks associated with verbal storytelling.⁴ Lastowka and Hunter describe the virtuality of literature by noting that the reader makes a conscious decision to ignore the fact that the story is just a story. By ignoring the fact that the story consists purely of symbols, the reader immerses himself into the fictive environment.⁵ Glancing back through the history of great fiction, one finds that invented or made-up worlds tend to account for a substantial proportion of the great literary works. These works depict virtual worlds, which are

⁴ Such as fading from memory or popularity and eventually from history.

⁵ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 15.

often very dissimilar to our own, in such detail that it is easy to immerse one into them.⁶

Some of the most important modern works of fiction that created a virtual world (and led to numerous online visual virtual worlds) are JRR Tolkien's *The Lord of the Rings* (1955) trilogy and *The Hobbit* (1937).⁷ All of these books are set in a fictional world and benefit tremendously from the detailed and rich descriptions of specific imaginary geographic areas such as *Middle-Earth* and *The Shire*. The geographic details are so well described and illustrated, with hand-drawn maps by Tolkien himself, that one can recognise and accurately recreate areas from the book visually and on a consistent basis.⁸ Another example that springs to mind is *The Wheel of Time* (1990) series of novels by Robert Jordan, which also led to the creation of a number of virtual worlds based on his writings. Some other examples worth mentioning are Anne Rice's *Servant of the Bones* (1998) and the fiction/non-fiction debate concerning Dan Brown's *The Da Vinci Code* (2004). Most notable is of course the world of *Harry Potter* (1997), created by JK Rowling. Tolkien's works are

⁶ Examples are Dante Alighieri's *Divine Comedy* (1555), William Shakespeare's *The Tempest* (1611) and especially Lewis Carroll's *Alice in Wonderland* (1865), mentioned in Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 15.

⁷ The first edition of book one of *The Lord of the Rings* called *The Fellowship of the Ring* was published in 1954. The story told there continued where the narrative of Tolkien's *The Hobbit* (1937) left off.

⁸ As a consequence, most readers of Tolkien will immediately be familiar with such recreations.

credited with perhaps having the greatest influence in the creation of the first electronic virtual worlds and the birth of the whole fantasy-literature genre.⁹

Next came the fantasy war-game called *Dungeons and Dragons (D&D)*. It was based on Tolkien's world and simulated the adventures of various characters from his books. The player of *Dungeons and Dragons* identified with the character¹⁰ that he or she played, as opposed to controlling armies of game-pieces in traditional war games. This led to the game being described as a role-playing game,¹¹ since the player played out the role of his or her favourite character.¹² Another feature of the

⁹ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 16. They even had a vast effect on pop culture from the 1960s up to today, with bands such as Led Zeppelin releasing various songs relating to Tolkien's world. Some of Led Zeppelin's songs with direct references are "Over the Hills and Far Away" (1973) *Houses of the Holy*, "Misty Mountain Hop" (1971) *Led Zeppelin IV*, "Battle of Evermore" (1971) *Led Zeppelin IV*, and "Ramble On" (1969) *Led Zeppelin II*.

¹⁰ The word "avatar" refers to the electronic image that represents the player inside the game. The terms "avatar" and "character" can be used interchangeably, although virtual world participants usually use the term "avatar" when referring to their characters or in-game representations of themselves.

¹¹ A role-playing game can be described as a fantasy game where the player uses his imagination to interact with and use the fantasy environment. It consists of elements of acting, storytelling, social interaction, war game, and dice rolling. The player and his or her companions in the game are able to create their own characters, which develop and grow with each adventure they complete. See Wizards of the Coast "What is D&D" at <http://www.wizards.com/default.asp?x=dnd/whatisdnd> (2 April 2009). See also Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 16.

¹² The official *D&D* website describes *D&D* as a role-playing game which is an imaginative, social experience engaging players in a rich fantasy world filled with larger-than-life heroes, deadly monsters, traps, puzzles, obstacles and diverse settings. *D&D* was created in 1970 by Gary Gygax and Dave Arneson and featured a "Dungeon Master" who creates and describes obstacles and events for the players verbally. The core element of the game is that players can create their own

typical role-playing game is called “levelling”, which is what happens when a player has defeated a certain number of monsters, quests or obstacles, and consequently his avatar¹³ increases in power.¹⁴

2 2 2 2 Multi-user dungeons (MUDs)

Although *D&D* continued to gain in popularity, the game system and rules were complicated to master and required some degree of commitment from the player in terms of imagination and concentration to play the game properly.¹⁵ Computer-based

characters, which they can guide through a series of adventures created by the Dungeon Master, who offers an infinite amount of choices for the players. No two games will ever be the same. Each player’s character can develop over time and can gain skills and abilities as the game progresses. See Wizards of the Coast “What is D&D” at <http://www.wizards.com/default.asp?x=dnd/whatisdnd> (20 May 2009).

¹³ According to Wikipedia, an avatar can be defined as “a computer user’s representation of himself/herself or alter ego, whether in the form of a three-dimensional model used in computer games, a two-dimensional icon (picture) used on Internet forums and other communities, or a text construct found on early systems such as MUDs. It is an ‘object’ representing the embodiment of the user. The term ‘avatar’ can also refer to the personality connected with the screen name, or handle, of an Internet user.” See Wikipedia contributors “Avatar (computing)” 2009 *Wikipedia, The Free Encyclopedia* at [http://en.wikipedia.org/wiki/Avatar_\(computing\)](http://en.wikipedia.org/wiki/Avatar_(computing)) *Wikipedia* (14 July 2009). The terms “avatar” and “character” can be used interchangeably, although virtual world participants usually use the term “avatar” when referring to their characters or in-game representations of themselves. I will use the terms interchangeably.

¹⁴ This usually entails that a player starts out in the game at level one. Once he or she “levels”, his or her power increases and the game continues. Once the player has accumulated enough experience he or she will level up to the second level, etc.

¹⁵ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 17.

virtual worlds speedily developed from Tolkien and *D&D*. One can speculate about the exact causes of this development, but it would seem that the time was just ripe for the transition from book to computer to take place,¹⁶ especially because of the fast-growing field of electronic computing, which reached exponential growth in the later part of the 20th century.

In 1976 the first computer game containing elements of *D&D* was written by Will Crowther. It was called *ADVENT* and comprised of a user-navigable textual database.¹⁷ The game's virtual world was based in a cave and contained elements of *D&D* to make it interesting. When playing the game, interaction with the player was purely textual and the computer took over the conversational tone of a *D&D* Dungeon Master by simulating and describing a situation for the player. *The Colossal Cave Adventure* game,¹⁸ produced in the 1970s, was the historic first

¹⁶ Without going into the history of the development of the personal computer, it should be noted that from about the late 1970s the personal computer revolution really started, empowering many people (and of course fans of role-playing games) to start developing computer games with this theme. Initially, all these games were created and hosted on large, extremely expensive university mainframe computers. For general information on the history of computing see Computer History Museum "Timeline of Computer History" *Computer History Museum* at <http://www.computerhistory.org/timeline/> (21 May 2009); for the personal computer see the Wikipedia Contributors "History of Personal Computers" 2009 *Wikipedia, The Free Encyclopedia* at http://en.wikipedia.org/wiki/History_of_the_personal_computer (21 May 2009).

¹⁷ This could also be described as a database of textual descriptions: Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 17.

¹⁸ This game is actually based on the real world location of Bedquilt Cave in Kentucky, US. Adams R "The Connection between 'Adventure' and the Real 'Colossal Cave'" *RickAdams.org* at http://www.rickadams.org/adventure/b_cave.html (05 Nov 2010).

"interactive fiction" game, in which the computer would simulate and describe a situation and the user would type in what to do next, in simple English. The game starts like this:¹⁹

“Somewhere nearby is a Colossal Cave, where others have found fortunes in treasure and gold, though it is rumoured that some who enter are never seen again. Magic is said to work in the cave. I will be your eyes and hands. Direct me with commands of 1 or 2 words ...”

It then continues with the first description, after which you are expected to interact:

“You are standing at the end of a road before a small brick building. Around you is a forest. A small stream flows out of the building and down a gully.”

One then gets the opportunity to start exploring the environment by using rudimentary commands such as FOREST, BUILDING, EAST, DOWNSTREAM and UP, which are object words describing places, and action words such as TAKE, UNLOCK and EAT. By using these words in various combinations, one can interact with the environment and navigate one’s way through this rudimentary virtual world.

Other games followed this one, but all had the constraints of not being multiplayer capable and as such these worlds could only accommodate one avatar at a time. This leads one into the age of MUDs.

¹⁹ Version 3 of the game was rewritten to be playable on the windows platform and is available at http://www.rickadams.org/adventure/e_downloads.html (28 April 2009).

The need for a socially interactive environment was first met by using the facilities provided by university mainframe computers. These computers allowed multiple users to log into the system at the same time by making use of little more than a monitor and a keyboard.²⁰ This enabled users to get access to a technology and processing power that was prohibitively expensive for private persons, at the university's expense.

MUD1, created by Richard Bartle and Roy Trubshaw in 1979, was a textual social virtual world. The game was hosted on a mainframe computer at Essex University in the United Kingdom.²¹ What set this game apart from the rest was the fact that if different players were in the same room they could chat to each other by using simple text commands. The player was alerted to the presence of other players by including the information in the descriptive narrative describing the room. Although there was a facility to contact other players, the game's main purpose for players was still to kill opponents, gather treasure and eventually to move on to the next level by scoring points.²² The ultimate goal of the game was to progress by means of levelling to the level of "wizard", which gave the player an all-powerful status in the

²⁰ The workstations or terminals only facilitated communication between the user and the mainframe and then only to display the output on the screen: Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 18 fn 75.

²¹ The game is still available for playing today, under the new name of *British Legends*. Players connect to the server in an emulated terminal connection, which simulates the terminal-mainframe connection of old on today's super-powerful personal computers. For more details see the game's website at <http://www.british-legends.com/> (06 May 2009).

²² Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 19.

virtual world.²³ When *MUD1* was launched on *CompuServe* in the mid-1980s²⁴ it cost a player \$12.50 an hour to play.²⁵ This was the precursor for MUDs to become a commercial success as a new type of enterprise. After the original *MUD1*, a slew of derivative MUD-type environments appeared and created new categories of MUDs, with esoteric names such as “MOOs”, “MUSHes” and “MUCKS”.²⁶

In 1989 James Aspnes created a new type of MUD which was not at all linked to the *D&D* roots of its predecessors. He called it *TinyMUD*²⁷ and changed its focus away from levelling and gathering points to a more socially orientated game system. Players were given more leeway to customise their characters and to invent objects themselves. As more *TinyMUDS* were established, it transpired that characters spent more time in the social pursuits of chatting and lazing about and less time

²³ The game also allowed players to combat or even kill each other in order to earn points.

²⁴ It continued until 1999 and was only discontinued due to *CompuServe*'s Y2K clean-ups: Toth VT “A Brief History” 2007 *MUD* at <http://www.british-legends.com/history.htm> (06 May 2009).

²⁵ This was exceptionally expensive if one takes into account how much time a person usually needs to spend online playing this type of game. The fact that it was a commercial success underlines how astonishingly successful the modern day commercially run MMORPGs are (which charge an average of \$10 per month).

²⁶ “MOO” stands for “MUD Object-Orientated”, which refers to the type of programming it uses. “MUSHes” stands for “Multi-User Shared Hallucination” and typically refers to games that enforce a strong role-playing element. The meaning of “MUCKS” is less clear, but it seems to refer either to something similar to mud (a clever wordplay on MUD) or, more probably, to a “Multi-User Consensual Kingdom”. For more detail see Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 19 fn 84.

²⁷ This original version is now widely known as *TinyMUD Classic* and the term “TinyMUD” has become a generic reference to the genre.

trying to kill each other. Because of the move away from *D&D*, these TinyMUDs were set in new virtual settings such as the *Star Trek* universe, various novels and others not tied to the *D&D* and Tolkienesque origins.

LambdaMOO was created by Pavel Curtis in 1990 and is considered to be one of the most widely known social orientated MUDs.²⁸ *LambdaMOO* was differentiated from its predecessors in the fact that its environment could be altered by its users and that it became a focal point for research concerning virtual worlds. Much like in *Second Life*, characters can create unique, customised rooms and objects and so contribute to the dynamic element of the virtual environment. A new user starts in the “Coat Closet” and is welcomed to the game with a typically catchy description that serves as a greeting. This description immediately makes one feel caught up in the virtual world.²⁹ The narrative is engaging and amusing and sets the tone for the game at large. Because of the engaging nature of the game, a user is immediately totally immersed in the virtual reality of the game.³⁰ Another example of the light-hearted tone of the virtual world is the living room, the social hub of the game, where

²⁸ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 20; Rex F “LambdaMOO: An Introduction” *LambdaMOO* at <http://www.lambdamoo.info> (06 May 2009).

²⁹ The coat closet’s description on the *LambdaMOO* screen reads as follows: “The closet is a dark cramped space. It appears to be very crowded in here; you keep bumping into what feels like coats, boots and other people <apparently sleeping>. One useful thing that you have discovered in your bumbling about is a metal doorknob set at waist level into what might be a door. Next to it is a spring lever labelled ‘QUIET!’.”

³⁰ Much like when a person starts reading the latest bestseller from her favourite author and is immediately engrossed in the storyline from the first page.

a lot of interaction takes place. One of the items in the living room is a cockatoo that recites snippets of previous users' conversations if fed the birdseed conveniently located next to it.

The beauty of the text-based virtual worlds is that there is no limit to the creative element that can be used to describe them. Since everything depends on the narrative and textual descriptions, the only limits are the creativity of the narrator and the imagination of the reader. These worlds can be compared to the virtual worlds created in books and by storytellers of old. Each person will therefore visualise these worlds slightly differently but, as can be seen in the extracts from games above, they remain relevant even today.

2 2 3 Visually represented virtual worlds

The sheer number of users of MUDs who still spend their leisure hours exploring and navigating the text-driven corridors of these virtual worlds confirms their durability.³¹ However, advances in computer processing power, specifically in graphics card performance, have enabled the creation of visually represented virtual worlds; initially in a two-dimensional capacity and nowadays in superbly detailed high definition three dimensions.³²

³¹ Most of the MUDs also provide free access, which contributes to their on-going popularity.

³² Although usually the three-dimensional aspect is still represented on the two-dimensional computer screen.

The history of visual virtual worlds goes hand in hand with the history of computer games. In 1961³³ Stephen Russel, then a student at MIT, created the first graphically represented virtual world in the form of a computer game.³⁴ Called *Spacewar!*, it was not only functional as a form of entertainment, but created a valid and fairly accurate real world physics simulation model, which showed the player how his or her input affected the game. Since this game had to run on a million-dollar mainframe computer, there was no economic incentive for Russel to exploit his game commercially and he chose to make the program code freely available. This enabled Nolan Bushnell, one of the game's fans, to create the first video arcade game,³⁵ called *Computer Space*, which was based on Russel's code.

The next year Bushnell founded *Atari* and, as a form of intellectual exercise in gaming development, the game *Pong* was created. Because of its simple and intuitive interface, the game was an instant hit. Users were introduced to a virtual world that comprised of three lines and a dot on the screen. Two lines represented the paddles and could be moved up and down the screen to intercept and hit back the dot (representing the ball) across the third line in the centre, which represented

³³ The timeline here indicates that the development of visually represented virtual worlds preceded that of the text-based ones. However, this relates to another line of development and the first visually represented virtual world that could be compared to its text-based counterpart was only created in 1978.

³⁴ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 22.

³⁵ *Computer Space* failed to gain mainstream popularity due to the complicated nature of the gameplay. As a consequence it also failed as a commercial enterprise.

the net. As a commercial venture, this was extremely successful and it launched the video game industry³⁶ towards becoming the behemoth it is today.

As leaps were made in the graphics capabilities of both computers and programming techniques, *Atari* and a growing number of competitors started to produce an increasing library of partial³⁷ virtual environments involving sports, warfare and driving games. These games were aimed at both the arcade and home markets. In 1978 Warren Robinett created a graphic version of the original *ADVENTURE* program of Will Crowther for the *Atari* home console system and by 1980 graphics capabilities enabled the creation of *Battle Zone*.³⁸ *Battle Zone* gave players an avatar in the form of a tank with which they could navigate around a three-dimensional environment and do battle against computer-controlled enemies. The next development was isometric “scrolling” games, which enabled the virtual world that was displayed on the screen to go beyond the static edges of the screen.

Up to this stage, the partial virtual worlds were limited by the fact that the worlds could only persist for as long as the game was being played. As soon as the player quit the game or his avatar died in the game, the environment was reset and the

³⁶ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 24.

³⁷ It is called partial because of its lack of persistence. For more detail see the discussion about persistence at 4.3 below.

³⁸ For many people, the Atari home-console system was the start of what one would normally refer to as “TV games” which was found in many a sitting room: Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 24.

player had to restart from the beginning.³⁹ This problem was overcome as the home-computer market started to take off, leading to the availability of local data storage.⁴⁰ Developers could now develop games with a persistent character and as a consequence *King's Quest I* was released in 1983⁴¹ by Sierra. *King's Quest* did for graphical virtual worlds what *ADVENT* had done for the popularity of text-based ones. It was written on request of IBM for the first IBM PC to show off the PC's capabilities and it was so successful that it eventually resulted in a total of eight *King's Quest* games. The virtual world of *Daventry* in *King's Quest* was explored by the avatar of *King Graham* walking from place to place. Once the avatar came to the edge of the screen, there was a short loading period and as he exited the screen on the right hand side, he would reappear on the next screen on the left hand side. This created the map-like impression of the virtual world that enabled players to ascertain accurately, from a geographical perspective, where they were and where they were going.

In 1986 Lucasfilm came up with the creation of a persistent visual virtual world called *Habitat*, which ran on the *Commodore 64* personal computer and was

³⁹ This could be rather annoying when one's progress of the past 8 hours of intense gaming was reset to the beginning.

⁴⁰ With local data storage a player was able, for the first time, to "save" his or her progress in the virtual world on a data storage medium such as (initially) a floppy disk, stiffy disk and eventually a hard drive.

⁴¹ Sierra Online "King's Quest 1" *Vintage Sierra* at <http://www.vintage-sierra.com/kq/kingsquest1.php> (07 May 2009).

networked on the *Quantum-Link* network (which soon became known as AOL). The main goal of the game was simply to act as a platform for social interaction and players could choose how their avatars should look, especially by customising the appearance of their heads. The graphics were crude and very basic (in most part due to the restrictions imposed by the *Commodore 64* PC) and the players could communicate with each other by means of speech bubbles, which appeared above their avatars' heads.⁴² Astonishingly enough, the virtual world was designed to accommodate at least 20 000 avatars together with their own pieces of virtual real estate, which formed the building blocks of the world.⁴³ These were called regions and each region could be connected to up to four other regions. To reach a different region to the one in which one's avatar found itself, the avatar just had to walk off the edge of the screen to reappear in another region.

Another important fact was that the world had an in-game economy, complete with ATM machines, where one could access an avatar's bank account. The game also had its own currency and one could use one's in-game currency to buy products from a vending machine.

The creators eventually wrote about their experiences in designing and implementing the virtual world and provided the public at large with a brief view into

⁴² Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 25.

⁴³ With expansion plans to accommodate up to 50 000.

the complexities attached to such an enterprise.⁴⁴ They described *Habitat* as a "multi-player online virtual environment" that exists for the purpose of entertainment. They recounted that their main lesson from the project was that the virtual world is defined not by the technologies with which it is implemented, but rather by the interactions amongst the participants. They found that the important things for these participants are the capabilities that are available to them, the characteristics of the other participants they may interact with, and the ways in which these participants may interact with each other.

Some of the problems that the creators experienced included not knowing what type of entertainment or events to provide to the participants; urban planning issues;⁴⁵ and how to deal with players when the creators accidentally let loose an object in the virtual world that was not supposed to be in the hands of a normal player.

⁴⁴ Morningstar C & Farmer FR "The Lessons of Lucasfilm's Habitat" in Benedict M (ed) *Cyberspace: First Steps* (1991) at <http://www.fudco.com/chip/lessons.html> (12 May 2009).

⁴⁵ This can be gleaned from the following extract from their article: "Moreover, a virtual world such as *Habitat* needs to scale with its population. For 20 000 Avatars we needed 20 000 'houses', organized into towns and cities with associated traffic arteries and shopping and recreational areas. We needed wilderness areas between the towns so that everyone would not be jammed together into the same place. Most of all, we needed things for 20 000 people to do. They needed interesting places to visit -- and since they can't all be in the same place at the same time, they needed a *lot* of interesting places to visit -- and things to do in those places. Each of those houses, towns, roads, shops, forests, theatres, arenas, and other places is a distinct entity that someone needs to design and create. Attempting to play the role of omniscient central planners, we were swamped." See Morningstar C & Farmer FR "The Lessons of Lucasfilm's Habitat" in Benedict M (ed) *Cyberspace: First Steps* (1991) at <http://www.fudco.com/chip/lessons.html> (12 May 2009).

This virtual world was only around from 1986 until 1988 before it was discontinued, mostly due to the obsolescence of the Commodore 64 PC for which it was designed.⁴⁶ *Habitat* was eventually redesigned and released as *Club Caribe* in 1989 and in Japan (in 1990) as *Fujitsu Habitat*.

Since *Habitat* a lot of things have changed. The internet has grown organically and bandwidth and accessibility have increased. The computing power of PCs has continued to increase almost exponentially and the number of avatars populating virtual worlds (and the number of real world players controlling them) has grown dramatically. Currently, the most popular virtual worlds are commercial enterprises where the player has to pay a substantial amount of money each month for the privilege to participate in them. Usually there is a sign-up cost of around \$40 (US), in the form of buying a copy of the game on a CD or DVD in a shop, as well as a monthly subscription fee of anything between \$10 and \$15 (US).⁴⁷

Everquest is one of these vastly successful virtual worlds in both a commercial and a virtual world sense. Even though the game was released in 1999, it is still one of the most popular virtual worlds around and it celebrated its tenth year of existence in 2009. Fitting squarely into the *D&D* genre, *Everquest* can be viewed as going back to the roots of computer aided virtual worlds. The world is divided into several shards

⁴⁶ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 25; Wallis A "Playing Catch Up: *Habitat*'s Chip Morningstar and Randy Farmer" at http://gamasutra.com/php-bin/news_index.php?story=11232 *Gamasutra* (12 May 2009).

⁴⁷ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 25.

or servers, on which thousands of participants are hosted. When a character enters *Everquest's* world of *Norath* for the first time, he or she must choose on which shard they want to participate or live. After that, the player can choose and customise his or her avatar and then he or she can enter the virtual world. A player must choose from one of 16 "races"⁴⁸ and decide on his avatar's adventuring occupation.⁴⁹ *Norath* is represented to the player in a richly textured three-dimensional view on his or her screen and the player can see what is going on in the world on a real-time basis.⁵⁰ Other players are also visible and the player can "hear" their conversations, which are represented in a textual format on the screen.

Since *Everquest* is once again a world where the goal is the improvement or "levelling" up of one's character, one starts out with the minimum requirements that a player will need to start playing the game, such as the clothes one's avatar is wearing and a flimsy weapon. The player enters the world in a special section dedicated to new players, where he can orientate himself and hone his skills in playing the game in a (relatively) non-threatening environment. The player can level up and earn money by killing computer-generated enemies and animals in a nearby

⁴⁸ Such as elf, dwarf, ogre, human etc.

⁴⁹ The adventuring occupation is largely responsible for determining the avatar's abilities. For example, a Paladin is a hybrid between a warrior and a cleric; they can heal themselves and other players and cast certain spells. They are tough in melee battle situations and have the ability of inflicting relatively heavy damage on their opponents.

⁵⁰ Meaning that, as another player is giving his avatar the command to bend down and pick something up, one will see it happening at that exact same instant.

area specifically dedicated to generate fodder for this purpose. Once the player has reached a certain level he can leave the beginners' area and venture out into the rest of *Norath*.

Even though it is possible to play the game in "solo" mode, where a player keeps to herself and tackles enemies and obstacles on her own, the game encourages interaction between players by having several especially rewarding obstacles designed in such a way that they are much too difficult for one, two or even a small group of players to overcome. For this purpose, players have to work together and form guilds. Because there are regular lulls in gameplay, usually necessitated by having to wait while a player's avatar recovers her strength, the stage is set for social interactions between players, who then often discuss their real world lives and issues.⁵¹

Many of these social interactions lead to lifelong friendships and sometimes even marriages, although it seems that the games are responsible for more breakdowns of real world relations. There is a growing incidence of addiction to playing online games.⁵² This can be seen from the proliferation of websites and chat groups such as the Yahoo! Community of "Everquest Widows", containing more than 7355 members.⁵³

⁵¹ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 27.

⁵² See for example the online gamer's anonymous website at <http://www.olganon.org/> (16 May 2009).

⁵³ On the homepage of the group is a satirical poster of *Everquest*, which was altered to state: "Evercrack", "Evercrack ruins your life" and other such pithy witticisms. The group includes many

An avalanche of other visual virtual worlds has appeared on the scene and the number of these has been growing over the years. In the category of *D&D*, *Ultima Online* (*UO*) and *Dark Age of Camelot* (*DAoC*) operate in a similar fashion to the world of *Everquest*.

One of the distinguishing features of *Ultima Online*, which appeared two years earlier than *Everquest*, was the possibility of home creation and ownership that was built into the game.⁵⁴ Players can build their own (virtual) homes or castles, which they (or at least their avatars) then own. They can collect rare items to decorate it with and even build new items from scratch, using material available in the game. Along with the prestige of owning a piece of prime real estate, the player has the responsibility of maintaining the property, which is subject to in-world wear and tear. According to the developers, this concept of giving players something that they need to maintain has been a tremendous draw-card.⁵⁵ Players can own animals, both wild and domesticated. If an avatar owns a wild animal it has to be tamed first, which is a

angry male members too, whose wives have left them after spending a lot of time in, amongst others, *Second Life*. See EverQuest-Widows "Everquest Widows (tm)" 2009 at <http://health.groups.yahoo.com/group/everquest-widows/> (16 May 2009).

⁵⁴ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 27. See also IGN "Ultima Online: Mondain's Legacy Interview" 2005 *RPGVault* at <http://rpgvault.ign.com/articles/652/652195p1.html> (16 May 2009), where the lead designers of one of the *UO* expansion packs describe how players' ownership of housing works.

⁵⁵ IGN "Ultima Online: Mondain's Legacy Interview" 2005 *IGN.com* at <http://rpgvault.ign.com/articles/652/652195p1.html> (16 May 2009).

skill a player can acquire over time.⁵⁶ The developers see ownership as a way in which to keep players in the world and have them coming back for more. When asked how the developers remain competitive in today's environment, which is filled with so many alternative virtual worlds, they listed ownership of virtual land for housing purposes as their number one reason.⁵⁷

An example of a non-levelling world, *The Sims Online (TSO)* was launched in 2002 by Electronic Arts (EA). It was a multiplayer online version of the immensely popular computer game *The Sims*.⁵⁸ As a premium example of a non-levelling world, the fantasy component and links to Tolkienesque environments populated with Elves, Trolls, Dwarves and the like are typically lacking. These types of virtual worlds rather focus on a reality that is similar to the real world. When joining the game, a player has the opportunity to customise his or her avatar in much the same way that one can dress up a doll. One chooses one's avatar's appearance from a virtual cupboard of hundreds of clothing and physical appearance options. Since the world does not feature any specific quest-like purpose such as conquering the dragon and saving the princess,⁵⁹ the participant is left to his or her own devices. Even though a true goal of the game is never stated, it seems as if most players find the social

⁵⁶ Ultima Online "*Ultima Online Playguide: Skill 35: Animal Taming*" at http://guide.uo.com/skill_35.html (16 May 2009).

⁵⁷ IGN.com "Ultima Online: Mondain's Legacy Interview" 2005 *IGN.com* at <http://rpgvault.ign.com/articles/652/652195p1.html> (16 May 2009).

⁵⁸ Which has recently sold its 100 millionth unit.

⁵⁹ Like one would find in a *D&D*-based fantasy MMORPG.

interaction enough reason to spend their time online. If one were pressed to mention a goal, it would seem that the goal of the game was to make as much money as possible. *The Sims Online*'s virtual currency was called *simmoleons* and a player had to have his or her avatar work in one of the four main employment centres or find innovative alternatives, such as trading objects, to acquire more money. Since most participants spent their hard-earned cash on buying, building and decorating their homes, they welcomed visitors inside. Exploring other characters' houses and making small talk with the inhabitants was a favourite pastime of many participants. Since the world is based on *The Sims*' world, where one's character has to go through the normal drudgery of life, like taking a bath, sleeping and going to the bathroom, this drudgery stayed on as a prerequisite in *The Sims Online*.⁶⁰

The virtual world consisted of thirteen cities where avatars could make themselves at home. These included *Mount Fuji*, *Blazing Falls*, *Alphaville*, *Betaville* and *Test Centre*, amongst others. Some of the cities, like *Blazing Falls* and *Alphaville*, had large populations and the feel of a big city. In contrast, there were also smaller cities with a rural, townish feel to them and a correspondingly small number of inhabitants.

Because a player had to earn money in some form, avatars had certain skills that they used for the purpose. Much like in a levelling world, a player could increase the

⁶⁰ Virtual World Review "The Sims Online" *Virtual World Review* at <http://www.virtualworldreview.com/thesimsonline> (20 May 2009).

skill of his avatar by practicing a craft. The better one's skills level, the more money one could earn from one's job.

Aside from the fact that one could lounge around and chat to one's virtual friends in one of the cities, there was also a distinct need to work and live together in groups. Many of the jobs required that players work as a team in order to create a product (such as baking a pizza). This necessitated players to co-ordinate with at least three other players to accomplish certain tasks and earn their keep. Practicing a skill in a group was also a lot more rewarding for the player, since the experience points and skill level of a player could increase up to ten times faster in a group than when attempting it alone. Houses were also regularly shared and the costs of upkeep and decoration distributed amongst characters.⁶¹

In 2007 *EA* announced to the *TSO* community that it would rebrand *TSO* as *EA-Land* and re-launch the virtual world with better features. However, after rebranding the world as *EA-Land* and just weeks after the re-launch on 1 August 2008, the world was shut down permanently. Despite a huge outcry by its residents, the *EA* development staff claimed that the game has reached the end of its lifetime and that they needed to move on to new projects.⁶² It seems that *EA* lost interest in the

⁶¹ Gamespot "The Sims Online Review for PC" *Gamespot.com* at http://www.gamespot.com/pc/rpg/simsonline/review.html?om_act=convert&om_clk=gssummary&tag=summary;read-review (20 May 2009).

⁶² Terdiman D "'EA Land' Closing just Weeks after Debut" 2008 *CNET.com* at http://news.cnet.com/8301-17938_105-9931757-1.html (18 May 2009).

project due to its relatively small population⁶³ and that it therefore stopped adding to and improving on the concept.⁶⁴ Another reason for the poor attendance of players was the fact that players were not empowered to create their own customised content easily enough.⁶⁵

As primary competition to *The Sims Online*, the virtual world of *There*⁶⁶ appeared in 2003. Unlike *The Sims Online*, *There* is still around and inhabited today. All the avatars are human and the virtual-world setting is based on the real world. Whereas *The Sims Online* had earning money as one of its main goals, the object of *There* is just to socialise. As such, it can almost be described as a three-dimensional virtually populated avatar chat room.

There has an in-game economy and players use Therebucks for their currency. Therebucks can be purchased with one's (real world) credit card or earned by creating and selling original clothing designs and other objects such as vehicles.⁶⁷ One of the things that players can do in *There* is to visit one of the several exotic locations available to them. For example, they can use their hovercrafts or buggies to visit a virtual Egypt, featuring the Pyramids and the Sphinx, before going to a

⁶³ Relatively small in comparison to other popular virtual worlds.

⁶⁴ See the proposed rule relating to the shutdown of a virtual world in chapter 7 below at 7.2.

⁶⁵ Although content-creation was possible in *TSO* and used by many players, it was not a central feature of the game and did not live up to the expectations of the playing community.

⁶⁶ See the official website of "There" at <http://www.there.com> (20 May 2009).

⁶⁷ Virtual World Review "There" *Virtual World Review* at <http://www.virtualworldreview.com/there/> (20 May 2009).

virtual paintball fight. The developers of *There* have taken a novel approach to the concept of “build it and they will come”⁶⁸ by intentionally marketing the virtual world to women. This was done with the belief that if women came to the world, men would follow as a matter of logic.⁶⁹ The game specifically caters for women by having, amongst other features, certain anti-harassment rules built into the system. The developers also state that women come back to *There* more often than men, spend more virtual money and take more leadership positions in the community.⁷⁰

It is clear from all the above-mentioned virtual worlds that the genre is extremely diverse and has been in a constant state of flux over the past few years, undergoing constant development and innovation. The discussion of virtual worlds thus far does not purport to be complete or to include all the virtual worlds, since they are too numerous for all of them to be mentioned here. After the launch of *There* the graphic and visually immersive elements of virtual worlds increased drastically in sophistication.

⁶⁸ As used in the 1989 Movie *Field of Dreams*, where Kevin Costner builds a baseball diamond in his fields and the Chicago Black Socks eventually come to play there.

⁶⁹ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 28.

⁷⁰ Xiong C “Where the Girls Are; They’re Online, Solving Puzzles and Making Up Characters in Narrative-Driven Games” *What is There* at http://www.there.com/pressWsj_102803.html (20 May 2009).

2 3 Current and future developments in virtuality

In all of the virtual worlds discussed up until this point, the element of immersion of the player in the virtual world largely relied on the player taking a conscious decision to accept the virtuality as real. Even in the newest and most advanced MMORPGs, the player is still sitting in front of a traditional computer screen and interacting with the virtual environment via her keyboard and mouse or joystick. The three-dimensional element is just a two-dimensional representation of three dimensions and the player perceives it as three dimensional to the same extent that a viewer would regard a television programme as three-dimensional.

To truly view a game or virtual world in three dimensions, some stereoscopic display device needs to be used.⁷¹ Crude versions of this was used in the cinemas in the 1980s and 1990s, where the cinema handed out cardboard spectacles with one red and one green or blue lens. The picture projected onto the screen consisted of objects in the two different colours that were displayed slightly apart. The brain perceives the image as three dimensional, because it appears to each eye as if it is seeing the object from a slightly different angle. The technology has improved vastly

⁷¹ Early devices showing static pictures were made by “Viewmaster” and comprised of a viewing device looking like a big plastic pair of binoculars into which one could insert a rotating film showing images in 3D.

since then. Today, polarised glasses are used that enable one to view the movie in 3D and in full colour.⁷²

An attempt was made in the mid-1990s to enable three dimensional first-person shooters to work with stereoscopic devices. Games like *Doom II*, *Heretic* and *Descent* all had options that allowed one to connect a helmet with built-in stereoscopic LCD screens to the game. This created an illusion for the player that he or she was more fully immersed into the world. The problem was that the idea was ripe, but the technology was not. The headsets were extremely expensive and could not recreate even the most rudimentary graphics at a proper resolution to make the games playable.

The technology has matured a lot since then, but currently it is mostly used for medical and engineering purposes. Even though the technology exists for the computer gaming market, it has not gone mainstream yet. Most computer game players are not even aware of the capabilities of such a system. Exceptions can be found in the odd virtual reality arcade game where one can climb into a ring, put on the helmet and glove and then walk around interacting with the environment.

New technologies are starting to make an impact in this area. One example is a normal LCD computer screen that is capable of displaying certain software in a perceived three-dimensional way. Other examples are devices like the *Wii* gaming

⁷² For more information on stereoscopy see Guru3d.com "Stereo 3D Technology" *guru3d.com* at <http://www.guru3d.com/category/stereo3d/> (24 May 2004).

console from Nintendo and the PlayStation Move⁷³ controller connected to Sony's PS3, which allows for accurate translation of the player's physical movements in a three-dimensional environment by using a camera mounted on the display device that tracks the movement of the controllers in hands of the players. Microsoft recently released a device, called the *Kinect*, which monitors and translates body movements into the game using only a camera.⁷⁴ The most successful gaming device that is commercially available and quickly increasing in popularity now is the Nintendo 3DS. This is a handheld gaming device that includes a screen that is capable of displaying three-dimensional content without the need for any special headset or glasses. Even though the screen is very small, it is can effectively immerse a player into a three dimensional environment without causing too much eyestrain or feeling like a gimmick.⁷⁵

There is a different way of viewing and perceiving virtuality that is facilitated by the level of immersion of the player into the virtual world. It is possible for a player to be much more deeply immersed into the virtual reality by making use of devices such as Head Mounted Displays (HMDs), virtual reality tactile gloves and

⁷³ For more detail see: Miller R "PlayStation Move Review" 2010 *Engadget* at <http://www.engadget.com/2010/09/01/playstation-move-review/> (04 July 2011).

⁷⁴ For more detail see: Miller R "Kinect for Xbox 360 Review" 2010 *Engadget* at <http://www.engadget.com/2010/11/04/kinect-for-xbox-360-review/> (04 July 2011).

⁷⁵ For more detail about the technical and functional aspects of this device see Stevens T "Nintendo 3DS Review" 2011 *Engadget* at <http://www.engadget.com/2011/03/21/nintendo-3ds-review/> (04 July 2011).

multidimensional treadmills.⁷⁶ These devices are used together with “surround” sound audio systems and are currently used to access virtual reality in various ways. However, they still lack the sophistication that is necessary to create a truly immersive environment. At the moment research is being done into the recreation of more accurate tactile sensations via full body suits, the recreation of smells and changing normal “surround sound” audio to include channels above and below the listener.⁷⁷

2 4 What is a virtual world?

2 4 1 Introduction

In plain, everyday language, one could define a virtual world as an alternative, non-physical world, in contrast to the real, physical world we live in.⁷⁸ More eloquently put, “virtual worlds are computer-moderated, persistent environments through and

⁷⁶ For more information and a good general overview of the technology and application of this technology see the Wikipedia page on Virtual Reality at http://en.wikipedia.org/wiki/Virtual_Reality (24 May 2009). One should not lose sight of the developments in holographic display technologies either, which are rapidly maturing. However, this technology is not commercially viable for gaming purposes at the moment.

⁷⁷ Today’s normal surround sound is in fact only “surrounding” the listener on a horizontal plane.

⁷⁸ For a discussion about the content and meaning of cyberspace as opposed to virtual worlds see Folsom TC “Defining Cyberspace (Finding Real Virtue in the Place of Virtual Reality)” (2007) 9 *JTIP* 75-122.

with which multiple individuals may interact simultaneously.”⁷⁹ In the following section, I analyse this definition by breaking it down into a number of *essentialia*, namely computer moderated, persistent, environments, interaction with the world and participation of multiple individuals. The following discussion of each essential element should provide a basis for conceptualising virtual worlds.

2 4 2 Computer-moderated

A computer-moderated environment means that a computer⁸⁰ controls everything about the virtual environment. This is done by means of a program (or programmed set of fixed instructions or rules) that tell the computer how to create and maintain the virtual world. Of course, the program is created by programmers or software developers who are actual people and as such, the computer-moderated environment is in turn moderated by real human beings.

⁷⁹ Bartle RA *Pitfalls of Virtual Reality* (2004) 1-24 at 4. See also Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 5, who focus on persistence and dynamics as essential characteristics of a virtual world. For purposes of the analysis in this section, Bartle’s definition is used.

⁸⁰ The type of computer that controls these environments is not the desktop computer that one is familiar with, but usually comprises of a large array of powerful server computers that are linked to each other. This costly exercise requires a substantial amount of capital investment. Data storage is important, since the complexity of the virtual world and the numbers of inhabitants determine the amount of storage capacity required by the computers to keep the environment persistent.

An interesting thing to note is that even though the computer will always follow the specific commands in the program to give effect to the needs of the developers, the exact consequences will often not be predictable.⁸¹ This unpredictable element is attained by implementing certain theories, techniques and algorithms⁸² such as randomisers⁸³ and chaos theory.⁸⁴

2 4 3 Persistence

Out of necessity, the virtual world needs to be persistent. “Persistent” in this sense refers to the fact that an online world needs to exist continually and without interruptions. It can only be called a virtual world if it is constantly there and available for the users to participate in. If it is not persistent or if the servers were to be switched off, it would become a theoretical world instead of a virtual one. Another

⁸¹ An example would be a weather system built into the program. Simulated weather like rain, wind, sunshine, clouds, etc could have a vast influence on the virtual world and the participants, just like in real life. The program creates weather on a randomised basis, which makes it impossible to know what the weather will be like on the virtual world in an hour or on the next day. If a proper randomising algorithm is used, not even the programmers could predict the state of the weather accurately.

⁸² The WordWeb dictionary defines this as “[a] precise rule (or set of rules) specifying how to solve some problem”: Lewis A *WordWeb 6.1* (2010) Princeton University.

⁸³ A special program that is designed to randomly generate numbers that are often used to create random events.

⁸⁴ Chaos theory can be defined as “the study of nonlinear dynamics, where seemingly random events are actually predictable from simple deterministic equations”: Rouse M (ed) “Definition: Chaos Theory” 2009 *WhatIs.com* at <http://whatis.techtarget.com/definition/chaos-theory> (15 June 2012). For a comprehensible description of chaos theory that outlines the essentials see the prologue of Gleick J in *Chaos: Making a New Science* (1988) at <http://www.around.com/chaos.html> (19 May 2009).

reason why it should be persistent is because of a virtual world's dynamic nature. If the world is not there, then nothing can be changed in the world and the state of the virtual world is in effect frozen. As soon as the virtual world comes back online again, everything is resumed as it was before. If the world is not persistent and the computers moderating the world were to experience a power failure or crash, then all data and changes to the virtual world that was created by the computer and users would be lost and reset to the initial state when the world was first introduced.⁸⁵

From a player's perspective this means that even when the player is not physically busy playing and contributing to the game, the environment continues to exist and new developments happen without the player's input or participation.⁸⁶ In one's absence, the other players continue with their normal online activities such as exploring new territories, venturing out on quests, slaying dragons or just plain tending his or her virtual garden (depending on the genre of game being played). It is quite possible that when a player re-enters the game after a period of absence, he or she will experience the same sense of disorientation that one would experience

⁸⁵ For a participant this would mean that all the time and effort spent on the game would be to no avail. For example, a player who has progressed through various levels of a game and been rewarded with special abilities and items such as magic swords or gold, would find himself back at the beginning of the game in the same condition as the day he first started playing the game, but without his experience and gold.

⁸⁶ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 6.

when visiting one's birth town after a number of years.⁸⁷ Buildings might have been built or demolished, roads could have changed or been renamed, and one might find that an old friend has moved away. In some games, one could even find one's character robbed, or dead!⁸⁸ As Hunter and Lastowka put it, one might find that both the infrastructure and the character of the neighbourhood have changed.⁸⁹

From a practical viewpoint, developers would want their virtual worlds not only to be persistent, but also accessible by the players. In other words, the worlds should be available and online for as long as possible, without interruption. The economic fact of the matter is that if the world is not available or (even worse) persistent, real individuals would not participate in it or be willing to pay for getting access to the world.

⁸⁷ Since things tend to change slowly over time, the changes are a lot more striking to the person who only sees a place every now and then.

⁸⁸ In some games, death is just a nuisance, having one start again at a specific geographic area. In other games, a player can lose most of her belongings, enabling other players to loot her avatar's corpse. However, in a small number of games, death is permanent and one would have to create a new avatar if the old one died and then start playing from the beginning.

⁸⁹ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 6.

2 4 4 Environmental attributes

The environment⁹⁰ of an online world is usually representative of accepted or familiar real world environments. This characteristic renders the virtual world immersive and persuasive for players. “Immersive” refers to the level of immersion that a player experiences when playing a game. The more immersive the environment is, the more the player will feel as if she is actually and physically present in and a part of the virtual world. Persuasiveness is closely linked to the level of immersion into the virtual world. The more immersive a virtual world is, the more a player will be persuaded to feel that the virtual world is real. A three-dimensional environment is used to create an illusion of a physical world by means of advanced computer graphics. As the processing power of modern computer graphics cards increases, the games or worlds in which the games are based become more real every year. Where there were once only a few pixels that represented a character on the screen, one now encounters almost (and in many cases actual) photo-realistic representations of characters and their environments.⁹¹

⁹⁰ The term “environment” as it is used here, refers to the geographical spatial representation of the virtual world.

⁹¹ In fact, modern computer graphics makes it possible that every single hair on a character’s body is individually generated by the computer and drawn on the screen. Advanced physics processing makes it possible that every single hair is then subjected to the in-world physics and environmental changes such as gravity, or the weather. This means that if the wind is ruffling someone’s hair, the movement of each individual hair is calculated by the computer and displayed individually on the screen. This in turn adds to the photo-realism illusion for which game developers strive. For some

The choice of environment is based on the subject matter of the game chosen by the developer and is aimed at the target audience of gamers or users. If the game is aimed at *Star Trek* fans, it is assumed that the target audience will be familiar with the inside of a *Star Trek* fleet ship and that they could identify with and immerse themselves into the experience.⁹²

Furthermore, the familiar concepts often include such things as a place, an inhabitant and an object. These virtual items are referred to as a matter of convention in the same way one would refer to real items, such as an “inn”, “innkeeper” and “sword”, instead of a “virtual inn” or an “interpretation of computer data or bits”.

2 4 5 Interaction with the world

“Interactivity” refers to the interactions between players and the virtual world. This includes interaction amongst the players themselves; between players and things;

visual imagery, see Elston B “Classic Game Characters: Then and Now” 2010 *Gamesradar* at <http://www.gamesradar.com/classic-game-characters-then-and-now/> (30 July 2012).

⁹² Various genres of games contain such a rich history and lore that fans are often just as dedicated to them as fans of popular sporting events who camp out for days in front of ticket booths to make sure they get tickets for an important sporting event. Many *Star Trek* fans (also known as “Trekkies”) speak fluent Klingon (the language of the fictional race of Klingons) and know the theoretical composition and engineering blueprints of space stations and technology used in the films, books and television series. From this example, one can understand how a “Trekkie” can immerse him- or herself into a virtual world based on the *Star Trek* Universe.

and between players and the environment. Interaction is an essential element of the virtual world for both the existence of the world and its believability for the player. The more interactive an environment is, the more interest it will hold for the player and the richer the gaming experience will be.⁹³ A large part of the illusion that the virtual world creates for the player will be lost if the world is not properly interactive.

A virtual world and all interactions in it take place in a represented reality. Consequently, the inhabitants or participants in a virtual world know and interact with each other through representational proxies that are known as avatars or characters.⁹⁴

Some items are so interactive that they are destructible and players are encouraged to destroy items as part of the gameplay.⁹⁵ In most virtual worlds, items that are essential to the functioning of the storyline and the progress of the character's development are interactive. For example, a player would need to approach a lift in a game and be able to interact with it by pressing the button to call it and then operate it to go to the correct level once the player has stepped inside.

⁹³ 3D games or online worlds are often rated for their quality and compared against each other in gaming reviews, which are very similar in form to the well-known format one encounters when reading about motor vehicle road tests. One of the comparison criteria that are often of critical importance in determining a game's score is the level of interactivity of the environment.

⁹⁴ As based on the example proffered by Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 3-6.

⁹⁵ Players often have to break open treasure-chests or doors as part of the storyline to get to the gold or to progress into a new area. Depending on the type of game, this often leaves the item permanently destroyed and functionally useless for other players.

However, certain things are created solely for aesthetic purposes and are either inapproachable or static to the extent that nothing a player does has any effect on the item.

Players often interact on both a social and a physical level. The virtual worlds make provision for characters to approach one another, talk, eat, go on quests, exchange items and attack and kill one another (virtually speaking, of course).

2.4.6 Participation of multiple individuals

If there is no interaction between multiple individuals, one refers to such an environment as a single player game. Although the environment in these games might resemble an online world, it is usually not persistent and not referred to as a virtual world. The idea behind a virtual world is that multiple real individuals participate in the experience just as they would in real life, but with the difference that the environment where they interact is virtual. Such games are referred to as Massively Multiplayer Online Role Playing Games ('MMORPGs').

In certain games or worlds, it is possible to customise the avatar in almost all aspects of appearance. The avatar's gender, ethnicity, skin tone, angle of cheekbones and clothing may all be highly customisable. The virtual world of *Second Life* takes this customisation to a new level by actively encouraging inhabitants⁹⁶ to

⁹⁶ Avatars in *Second Life* refer to themselves as inhabitants.

create new and unique characters, as well as clothing for them. A player starts his or her life in *Second Life* with a default profile that gives him or her access to a limited choice of clothing and customisation options. The player is encouraged to make use of the in-game design tools to design his or her character's appearance or clothing further. Once an item has been designed, copyright vests in the creator⁹⁷ and the clothing can be sold or traded for those created by others.⁹⁸

The primary reason for allowing the creation and customisation of avatars to such an extensive degree is to facilitate social interaction.⁹⁹ Up to now, the avatars in virtual worlds have been communicating through textual chat windows or speech bubbles trailing above their heads cartoon-style, but thanks to technology players can now make use of Voice over Internet Protocol (VoIP)¹⁰⁰ to speak to and hear each other in real time.¹⁰¹ In some virtual worlds, there are vehement debates about allowing this development, because it could (potentially) cause a slowdown in the speed of the game or other problems. In other games, like real-time strategy games

⁹⁷ This is noteworthy because copyright usually vests in the developers and creators of the virtual worlds and not in its participants. In this case Linden Lab, who is the developer of *Second Life*, explicitly designed the world to give ownership in new items to the players who created the items.

⁹⁸ See the discussion about transfer and acquisition of virtual property in chapter 6 at 6.3.5 below.

⁹⁹ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 6. For an example of how such virtual worlds can be used in teaching see Townsend GE "Fizzy's Second Life" 2007 at <http://fizzysecondlife.blogspot.com> (12 March 2008).

¹⁰⁰ Voice over Internet Protocol (VoIP) is a technology that allows a person to make and receive audio calls over the internet in real time, as if they were using a normal telephone.

¹⁰¹ This is most often done by making use of microphone headsets similar to the ones one uses for chatting over the internet when using Skype.

where multiple players play in co-ordinated groups towards a communal goal, this is an essential part of gameplay and players would ignore a new upstart virtual world that does not have the facility built in.¹⁰²

Body language also plays an important role for avatars to express themselves. Avatars can do certain things specified by their players such as yawn, clap, dance, shout, sing and numerous other actions that one uses in everyday interaction with others.¹⁰³ Thus, by just glancing at another player's avatar one can immediately see how it feels.

Hunter and Lastowka postulate¹⁰⁴ that it is perhaps due to this rich social interaction that many players who visit these virtual worlds remain residents of them and spend a substantial period of their time in them. The players design clothing, houses and furniture for their avatars, which they can sell to others and earn money. They can join and form clubs, organisations, clans and guilds devoted to mutual protection and aid.

¹⁰² In a war simulation game such as *Command and Conquer*, a general can communicate with his adjutants without needing to resort to the time-consuming task of typing, when he is using both hands to control the game.

¹⁰³ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 6. In early versions of single-player games such as *Sonic the Hedgehog*, one's avatar would start to show boredom or impatience by tapping a foot impatiently when the player takes too long to interact with it. The same goes for modern virtual worlds such as *The Sims Online*, where avatars could for example wet their pants if one does not take them to the bathroom in time.

¹⁰⁴ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 6.

2 4 7 Conclusion

In this section, it was shown that “virtual worlds are computer-moderated, persistent environments through and with which multiple individuals may interact simultaneously.”¹⁰⁵ This definition of virtual worlds was broken up into its various constituent elements (*essentialia*) and each was discussed in turn. From this discussion it is clear that the social interaction and interactivity between avatars and players is such a central theme of virtual worlds that it not only enriches personal interaction between players, but also makes economic activity not only possible, but inevitable. Interaction and interactivity lead to the creation of an in-game economy that has a spill over effect into the real world economy.¹⁰⁶ The requirement that a virtual world needs to have the characteristic of persistence is also a necessity for an economy to come in to existence. In other words, these essential characteristics of virtual worlds will invariably have implications for property law because it encourages many players to compete for the same resources. These issues will be discussed in chapter 4 where the economy of virtual worlds as well as the question of why property lawyers should care about virtual worlds are analysed in more detail.

¹⁰⁵ Bartle RA *Pitfalls of Virtual Reality* (2004) 1-24 at 4.

¹⁰⁶ See the discussion in chapter 4 below.

2 5 Conclusion

The purpose of this chapter is to describe what is meant by a “virtual world”, as well as to understand its origins. It also introduces the technology at the centre of the completely new field of property law, namely virtual property. A discussion of the historical roots of virtual worlds is essential in order for one to understand the importance of the virtual worlds, both from a social as well as an economic dimension. The assumption that all virtual worlds can be categorised as online games was discussed and disproved because a large number of these worlds can be categorised as social environments and are not necessarily “only games”.

It became clear that virtual worlds are not something new. Virtual worlds already existed thousands of years ago, even before humans had the knowledge and benefit of the written language. I explored the origins of virtual worlds from the time when it was created by a narrator and existed purely in the minds of the listeners, up to the modern variety that is electronically hosted on computer servers in some abstract and unseen place. These ancient origins belie the pre-conceptions that most people have about virtual worlds as being only a fashionable and modern phenomenon and a way in which to pass leisure time. The examination of the historical foundations also demonstrated the growth of the virtual world as an important social manifestation and showed how it affects people’s everyday lives. A brief glimpse into the current and possible future developments of virtual world immersion shows that there is continual scientific and public attention focused on both the social and technological potential of these worlds.

In order to come to grips with the concept of a virtual world, I analysed a comprehensive, but concise, definition of a virtual world, separating the definition into its *essentialia* (being that a virtual world is a computer moderated, persistent, virtual environment, which is interactive and a place where multiple individuals participate). This narrowed-down definition of the broader concept of a virtual world enables one to compare different virtual worlds and the discussion of the history of virtual worlds helps one to conceptualise the definition. The discussion about the *essentialia* of a virtual world also forms the basis for the discussion in chapter 4 below about the economic and property consequences that will inevitably result from participation in a virtual world.

The next chapter will build on the issues discussed here by focusing on the natural world phenomena of both property and law as they are encountered in a unique virtual world environment.

Chapter 3: Rules, Regulations and Law in Virtual Worlds

3 1 Introduction

Leading on from the discussion of virtual worlds in the previous chapter, the concept of virtual law¹ will be discussed in this chapter. In order to fully understand how virtual worlds function and leading on to the analysis of “virtual property”, it is necessary to investigate and discuss how virtual worlds make use of rules, regulation, legal systems and laws to contribute to the proper functioning and internal governance of the virtual world and its interaction with the real world. As in the real world, virtual worlds are also subject to the phenomena of rules, regulations and legal norms. For the purpose of this chapter I refer to these rules, regulations and legal norms collectively as “virtual law”. The term “virtual law” can be defined in a

¹ For a general discussion of the field of virtual law see: Duranske BT *Virtual law: Navigating the Legal Landscape of Virtual Worlds* (2008) 14; Terdiman D “Laying Down the Virtual Law” 2003 *Wired* at <http://www.wired.com/gaming/gamingreviews/news/2003/11/61188> (8 August 2011); Edelmann P “Framing Virtual Law” 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011); Mnookin LJ “Virtual(Iy) Law: The Emergence of Law in LambdaMOO” (1996) 2 *JCMC* (Electronic); Lessig L *Code and other Laws of Cyberspace* (1999); Glushko B “Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds (2007) 22 *Berkeley Tech LJ* 251-275; Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184 and Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74.

number of different ways.² First, there are laws that are virtual and only exist inside the virtual environment.³ Secondly, there are laws that pertain to the virtual environment but apply inside as well as outside of the virtual environment. Thirdly, there is real world regulation of virtual worlds.⁴ This chapter aims to explore how these laws function and interact. For purposes of this discussion, I initially focus on the phenomenon of in-world legal rules, why they are needed and where they come from. I then move on to the interaction between the real world legal system and the virtual world.

In this chapter, virtual law is considered from two perspectives, namely that of the developer and that of the player. Both parties have valid concerns regarding their vested or perceived interests and both will want them protected via some

² Duranske BT *Virtual Law: Navigating the Legal Landscape of Virtual Worlds* (2008) 14 broadly defines virtual law as follows: "Virtual law is like 'Internet law,' in that it refers to a wide body of generally pre-existing law that is applied somewhat differently in a new context. In fact, much of what we think about as 'Internet law' applies to virtual worlds. In sum, virtual law is the statutory and case law that impacts virtual worlds and the application of that law to these spaces. It also refers to the internal governance structures that are beginning to appear in some virtual worlds (such as community 'court' systems, mediation programs, and private organisations with contract based codes of conduct) to the degree that those mimic, draw on, and sometimes interact with 'real-world' law." See also Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 11-13 and Mnookin LJ "Virtual(ly) Law: The Emergence of Law in LambdaMOO" (1996) 2 *JCMC* (Electronic).

³ In this case, "virtual law" is used in the narrow sense as referring to laws that relate to "internal governance structures ... that appear in some virtual worlds." See Duranske BT *Virtual Law: Navigating the Legal Landscape of Virtual Worlds* (2008) 14.

⁴ Virtual law can also be used in the wider sense as referring to "internet law" or all law that broadly apply to virtual worlds. See Duranske BT *Virtual Law: Navigating the Legal Landscape of Virtual Worlds* (2008) 14. This wider approach will include both the second and third types mentioned above.

mechanism. The protective mechanism of choice is a legal system. However, because developers are usually responsible for the development of the in-game legal system, they have the opportunity to shape the legal relations to their advantage by means of an End User License Agreement (EULA).

Since virtual worlds tend to mimic the real world in terms of social interaction and are ultimately populated by avatars controlled by humans, it is logical that the need for control of and in a virtual world would ultimately result in the implementation of some form of legal system. This legal system is usually planned, created and implemented by the designers (developers) of a virtual world in order to regulate the (physical) virtual environment, enhance the game-play experience and contribute to the control of the in-world legal system and social interactions in it. The virtual world's legal system has to have some foundation, usually in the sources of virtual law.

In the real world the sources of law are derived from a collection of (depending on the specific legal system and country) common law, legislation, judge-made law, civil codes, constitutions, customary law and case law.⁵ Compared to the large number of possible legal sources in the real world, the sources of virtual-world laws are more restricted.

⁵ I only discuss western democratic legal systems for purposes of this study.

The first source of virtual law to be discussed in this chapter is the binary computer code that forms the basis of the virtual world.⁶ This refers to the rules contained in the virtual world programming and consists of binary code (ones and zeros). The second source of virtual law is the customary law that develops outside of the developer's sphere of influence, between the players themselves. This could also be referred to as common law, but common in the communal sense, and not in the real world common-law sense.⁷

Thirdly, I discuss the need for an in-game legal system and how this affects both developers and players with regard to power, control and executive law-making inside a virtual world. This is illustrated by a number of real world court cases that dealt with the concept of virtual property.

The final and most important source of virtual law is the contract that developers force players to enter into before they may participate in a virtual world. These contracts are usually manifested in so-called "End User Licence Agreements" (EULAs) and "Terms of Service" (TOSs).⁸ As a source of virtual-world law, the EULA

⁶ For an illuminating discussion on computer code and its effects on the laws of virtual worlds see Lessig L *Code and other Laws of Cyberspace* (1999) as well as the sequel: Lessig L *Code Version 2.0* (2006). See also Pollitzer B "Serious Business: When Virtual Items Gain Real World Value" 2007 SSRN at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 20, where Pollitzer succinctly (in about one and a half pages) gives an overview of how code works.

⁷ Which also has different meanings in Anglo and continental jurisdictions.

⁸ Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 177. See also Glushko B "Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds" (2007) 22 *Berkeley Tech LJ* 251-275 at 252; Pollitzer B "Serious Business: When Virtual Items Gain

is also an instrument that determines how rights and obligations concerning the virtual world are created and controlled by developers. I analyse parts of the EULA of *World of Warcraft (WoW)* to illustrate how the virtual world is operated on a contracts-based rights system and briefly touch on the property aspects as and where they arise.

The discussion of virtual world law in this chapter builds on the background information in the previous chapter about virtual worlds and forms a basis for the understanding of where the concept of virtual property comes from. Without the initial discussion and analysis of virtual worlds and the legal effects that they generate, there can be no fruitful analysis of the concept of virtual property that will follow in the following chapters and that forms the basis of this dissertation.

3 2 Code as law

The rules created by program code contribute to the body of virtual world law.⁹ The virtual world is built with the fundamental building blocks of computer code. This

Real World Value” 2007 *SSRN* at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 19, 22; Kunze JT “Regulating Virtual Worlds Optimally: The Model End User License Agreement” (2008) 7 *NW J Tech & Intell Prop* 101-118 at 103. Denapolis also gives an interesting description of how the legal relationships in virtual worlds work by analysing EULAs and various cases: Denapolis K “Real Concerns in Virtual Property” 2005 *SSRN* at <http://ssrn.com/abstract=1154234> (10 Oct 2009) 1-39 at 10.

⁹ See Jankowich AE “Property and Democracy in Virtual Worlds” (2005) 11 *BUJ Sci & Tech L* 173-220 at 177; Pollitzer B “Serious Business: When Virtual Items Gain Real World Value” 2007 *SSRN* at

code is at its essence just a list of instructions and rules that form a coherent structure when implemented in its final form. The most basic forms of computer programming are construed around such commands as IF, AND, THEN, DO, BUT and OR. An example of how this is used would be the following: "IF a player picks up a sword AND the sword is cursed THEN the player dies BUT IF the player is wearing a protective charm THEN he only loses 10 health points." This method of programming leaves no room for interpretation and the rules contained in the code are clear. The rules of the virtual world are coded into the program and collectively make up a body of virtual world law. In this sense the code is similar to the laws of nature because it is unchangeable (by the avatar), inevitable (for the avatar) and not open for negotiation or interpretation (by the players). In other words, the laws do not need to be enforced by external influence of the developer. The results are inevitable and, unlike in the real world,¹⁰ there is no room for manoeuvre when a player gets to deal with the program code.

<http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 20; Lessig L *Code Version 2.0* (2006) and Lessig L *Code and other Laws of Cyberspace* (1999).

¹⁰ The crux of the matter is that due to the unique nature of coded law, any rule that the developer wishes to implement into the game-design will be uncircumventable. This would mean that the implementation of code-based laws will always be similar to the laws of nature in the real world. However, unlike in the real world where this would be impossible, in a virtual world code rules that resemble real world legal rules (like ownership) can also function like natural laws. For example, game-code can make theft impossible in a virtual world, while this is not feasible in the real world. This issue is discussed in more detail below.

In a virtual world there is no meaningful distinction between software and law. What the software does not allow is impossible in law as well. This leads to an area of law in virtual worlds where “there is no room for mediation because any ‘legal’ mediation embodied in the software immediately becomes part of the ‘natural’ world.”¹¹ This means that a player’s property rights can be guaranteed inviolably by the programming. As the “owner” of a virtual sword, an avatar is guaranteed that the rights that he or she has in the sword would be protected and enforced against any other player by means of the game-code.¹² While the player “owns” the sword, no other player can interfere with his right, or even make use of it. This is generally true, but as in real life, property rights are not totally absolute or exclusive in a virtual world. A player’s property rights will be guaranteed only insofar as the software makes allowance for it.¹³ For example, a feature of the virtual world of *Ultima Online* is that players are enabled, by the software and game-design to steal from one another.¹⁴ In other virtual worlds, the software can render theft physically impossible.

¹¹ Grimmelman JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 150; Lessig L "The Law of the Horse: What Cyberlaw Might Teach" (1999) 113 *Harv LR* 501-549 at 522, 531. See in general Lessig L *Code and other Laws of Cyberspace* (1999).

¹² Grimmelman JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 150.

¹³ This is if the virtual law is derived from the computer code. It is also possible that players create legal norms between themselves that are not designed or enforced by the code-based legal norms. This aspect is addressed in more detail below at 3.3.

¹⁴ Grimmelman JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 150 fn 11; Lastowka FG & Hunter D "Virtual Crimes" (2004) 49 *NYL Sch L Rev* 293-316 at 309. Certain virtual worlds even include the class of “thief” as one of the types of avatar that a player can choose to create. For an in-depth discussion of the “thief” class and attributes relating to thievery in some other

Obviously, the programming choice inherent in this difference has significant implications for the protection of property.

This aspect of the virtual world legal system starts taking shape before any code is typed to create the virtual world. The rules are created by the game's designers when they plan the basic functions and operation of the virtual world. One example would be when a designer has to make a decision about what happens when a player picks up an item.¹⁵ From the designer's viewpoint there are just two options. Either the item becomes part of the things that the avatar carries around on a permanent basis (i.e. the avatar has permanent possession of the item), or else the avatar only has control over the item as long as he or she carries it around. This duality of choice is then coded into the game and leaves the player with no other options besides the two that the developer envisioned, as set out above.

A more complex example of the creation of such a rule would be when the designers think about how to create and implement a way for players to store items that they have gathered.¹⁶ The designer could decide to allow a player to have a house and to use it to store items that he had bought or acquired in the game inside the house. In such a case, there has to be practical policies about how this function

classes like "rogues", "swashbucklers" and "assassins", see Forum Contributors "Thief-classes in MMOs" 2008 *The Pub at MMORPG.COM* at <http://www.mmorpg.com/discussion2.cfm/post/1895730#1895730> (13 August 2011).

¹⁵ See the discussion on the acquisition of virtual property in chapter 6 at 6.3.5 below.

¹⁶ Grimmelman JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 150-154.

of the house is going to work. Will an item that is put down by the player inside the house stay inside the house (i.e. have permanence)¹⁷ or will it disappear? Who will be allowed inside the house? Will only the player be allowed to access the inside of the house, which in effect will safeguard his belongings, or will other people have access to the house? If so, what happens when someone else comes into the house? Can the player who uses the house for storage keep other people out? Can he prevent people who do in fact come in from taking items that he has put down in the house? What happens if someone who comes to visit, drops one of his (the visitor's) own items? Does it become the property of the house-owner, or does it stay the property of the original player?

To address these practical issues, the designer makes policy decisions about how the game will handle the problem. As soon as the policies are implemented in the game by programming it into the code, the rules of virtual law are created.¹⁸ Because this is part of the game-code there is usually no way for a player to circumvent these policies. If the code determines that one can only enter one's own house in the game, there is absolutely no way of entering the house of another person and, by inference, it is impossible to steal someone else's items out of their house. Unfortunately, even in the virtual world there is always an exception. The exception here would be that the code could be illegally modified, misused or abused

¹⁷ Compare with the requirements of permanence of a virtual world in chapter 2 above.

¹⁸ Edelman P "Framing Virtual Law" 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 5.

to get access to something that was not intended by the programmers. In essence, the only way to break the laws that are coded into the game is to “hack” the system.¹⁹ This distinguishes these laws from the laws of nature, which can never be altered and thus renders them closer to laws in the real world, which can be broken.²⁰

¹⁹ For more information about the different hacking methods see Feng C “Playing with Shadows – Exposing the Black Market for Online Game Password Theft” 2008 *18th Virus Bulletin Conference* at <http://download.microsoft.com/download/4/b/8/4b83fed7-ad1e-4d1f-abfe-bf9c121397b5/Feng-VB2008.pdf> (15 August 2011) 207-214 at 207, 209; Lastowka FG & Hunter D “Virtual Crimes” (2004) 49 *NYL Sch L Rev* 293-316 at 298, 313. This is such an important issue that developers tend to address it in the EULA. For example WoW’s EULA states that one is not allowed to “...use cheats, automation software (bots), hacks, mods or any other unauthorized third-party software designed to modify the World of Warcraft experience...” 2.B. Additional Licence Limitations: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009). This clause is important for the everyday governing purposes of the virtual world. Players who make use of hacks, cheats or other methods to circumvent the normal code-based rules can gain an unfair advantage over other players in the game. By making use of these methods, players could bypass the intended gameplay and programmed virtual laws of the game. Because of this problem, it is specifically prohibited in the EULA. Such players could also disturb the enjoyment of gameplay for the other players. If this is allowed to continue without abatement, it could cause the collapse of a whole virtual world if the general player population decides to move to a competing virtual world. Also compare fn 60 below.

²⁰ Although this is an example of where code as law is similar to real world law, the analogy is not totally accurate. When a player “hacks” the code-level law to change one of the unchangeable laws of the game, it is closer to performing real magic in the real world than to just breaking the law. An example is the act of levitation in the real world. The law of gravity determines that a person cannot levitate on earth, but if a magician were to break this unbreakable rule of nature and uses magic to levitate himself, he would not merely be making a choice to break a law, but in fact doing the impossible. The same can be said for a player who changes the code based rules by hacking the system. See in general Yoon U “South Korea and Indirect Reliance on IP Law: Real Money Trading in

The beauty of code as rules is that, even though these design issues and questions tend to lead to ever-increasing complexity, they do not suffer from the cognitive problems associated with the enforcement of such a complex rule-set in the real-life environment. In the real world, an increasingly complex set of questions creates an increased discretion of enforcement;²¹ in the virtual code-based world it stays simple. No matter how complex the rule-set becomes, the outcome is not open to discretion and will always be decided according to a binary and objective test by the computer. Software does not have the discretion of a judge and therefore every software decision embedded in code is always pre-determined.²²

3 3 User-created law

In a virtual world, unexpected things can happen. An example of such an unexpected event is the emergence of a source of virtual-world law in the form of

MMORPG Items" (2008) 3 *JiPLP* 174-179; Lastowka FG & Hunter D "Virtual Crime" 2004 *SSRN* at <http://ssrn.com/abstract=564801> (22 May 2009); Lastowka FG & Hunter D "Virtual Crimes" (2004) 49 *NYL Sch L Rev* 293-316 at 298, 313.

²¹ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 153; Edelmann P "Framing Virtual Law" 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 5. See in general Lessig L *Code and other Laws of Cyberspace* (1999).

²² Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 150-154; Edelmann P "Framing Virtual Law" 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 5-6.

customary rules developed by the players themselves.²³ A group of players will group together and agree amongst themselves that they will act according to a certain set of unwritten rules, or will just spontaneously start to do things in a certain manner. Any new player who subsequently enters the virtual world and spends some time getting to know the ropes will invariably pay close attention to the way in which other players are doing things. In this manner, a certain kind of in-game customary law is created. These unwritten rules and customs are usually external to the governing function of the developer and no reference to these rules will be found in the EULA or TOS. The developers are not directly involved in the settlement of any disputes originating between players regarding these rules and players normally find methods of settling these differences in their own way.²⁴

The determining factor of the effectiveness of a virtual-world customary law rule is whether it can be enforced.²⁵ If a rule is incapable of being enforced, then it might just as well not exist. In the virtual world, the enforcement mechanisms are often not

²³ Edelman P “Framing Virtual Law” 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 7-9.

²⁴ Grimmelmann JTL “Virtual World Feudalism” (2009) 118 *Yale LJ Pocket Part* 126-130 at 128; Johnson DR & Post DG “Law and Borders - The Rise of Law in Cyberspace” (1996) 48 *Stan L Rev* 1367-1402 at 1389-1390. See also Edelman P “Framing Virtual Law” 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 7-9.

²⁵ Maltz T “Customary Law & Power in Internet Communities” (1996) 2 *JCMC* (Electronic).

only quite amusing, but also effective.²⁶ One example of effective enforcement is where players will harass or shun another player who does not follow the customs of the game.²⁷ These might not sound like very effective mechanisms, but if a player's success in a game is linked to his or her ability to find and participate in a social group, shunning a player will have a devastating effect on that player's progress in the game.²⁸ Harassment²⁹ as an alternative form of policing is also quite popular and

²⁶ For example, players often resort to self-help if they are unable to get help from the developers. They do this to discipline other players who do not technically transgress the games rules, but do transgress the unwritten common law of the players. See Jakobsson M & Taylor TL "The Sopranos Meets Everquest: Social Networking in Massively Multiplayer Online Games" 2003 *FineArt Forum* at http://www.finartforum.org/backissues/vol_17/faf_v17_n08/reviews/jakobsson.html (05 Nov 2009). See also Maltz T "Customary Law & Power in Internet Communities" (1996) 2 *JCMC* (Electronic).

²⁷ As in the real world, social pressure as an enforcement mechanism is used to regulate player behaviour. For a real world example of how neighbours often resolve disputes amongst themselves by relying on informal and decentralised forms of control (making use of the example of cattle trespass and how this is resolved informally and often with self-help), see Ellickson RC *Order Without Law: How Neighbours Settle Disputes* (1991) 40-64.

²⁸ Crawford SP "Who's in Charge of Who I Am?: Identity and Law Online" (2004) 49 *NYL Sch L Rev* 211-229 at 228; Koster R "The Man Behind the Curtain" 1998 *Raph Koster's Website* at <http://www.raphkoster.com/gaming/essay5.shtml> (22 May 2009).

²⁹ However, one should take note of the very real possibility that this form of self-help in the form of social pressure as enforcement mechanism can quickly become problematical, especially when it forms the basis for anti-social behaviour that spills over into the real world. Examples of such anti-social behaviour include the online assault and harassment of minorities, women, people of colour and any other vulnerable individual. Because of the safety of anonymity that the internet can provide, anonymous online groups are free to terrorise victims by amongst other things, publishing lies, doctored photographs, sensitive personal information and even threats of physical or sexual violence against a person. See Citron DK "Cyber Civil Rights" (2008) 89 *BUL Rev* 61-125 at 62-66; 68-81.

in a game that has a time-based element, the passive act of surrounding³⁰ one player's avatar can cause a total loss of virtual assets for that player.³¹ Of course there are parallels with the real world where self-help is frowned upon. However, if the action of self-help inside the virtual world does not extend to or have an influence in the real world, then it should not be viewed with the same trepidation as in the real world. The fact of the matter is that it is commonly done by groups of players inside the virtual world and the practice is considered to be exceptionally effective.³²

Other forms of user-created law appear in the formation of guilds in most of the virtual worlds. These guilds draw up their own codes of conduct and enforce them

³⁰ This means that other players use their avatars to surround the errant player's avatar.

³¹ In the now-extinct virtual world of *The Sims Online*, there was a virtual mafia. The mafia was available for hire to make a player an offer he could not refuse. If he did refuse to co-operate, the members of the mafia would surround the player and effectively bar the player from earning virtual money or attending to the maintenance needs of his or her virtual property. This could result in a huge financial loss for the player if his assets deteriorated beyond repair, and sometimes the player would lose his or her virtual work. See Chmielewski DC "Mobs Move into 'Sims Online' Power Vacuum" 2003 *SiliconValley.com* at http://msl1.mit.edu/furdlog/docs/2003-06-05_sivalley_sims.pdf (10 Dec 2009). See also Urizenus "Interview with SSG's SnowWhite" 2004 *The Second Life Herald* http://www.alphavilleherald.com/archives/cat_in_game_news_from_alphaville.html#000036 (10 Dec 2009); Edelmann P "Framing Virtual Law" 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 8.

³² For an in-depth discussion on how these self-help mechanisms function and the uniquely effective and acceptable use thereof (in cyberspace) see Maltz T "Customary Law & Power in Internet Communities" (1996) 2 *JCMC* (Electronic). Maltz discusses the history, effectiveness, methods and the fact that these forms of self-help are generally based on the consensus of the virtual community at large.

without the help of the developer.³³ In other instances, players form a virtual posse of vigilantes that in a combined effort hunt down wrongdoers and subject them to the same harm that they have inflicted on others.³⁴ These examples illustrate the existence of a lively and innovative informal legal system that is created and enforced by the players amongst themselves.

3 4 Power, control and executive lawmaking³⁵

The developer of a virtual world usually performs the functions of governance, not only out of necessity, but also out of commercial interest.³⁶ The developer creates the virtual world out of nothing and has as much intellectual and creative freedom in the creation of the world as modern technological capabilities will allow for. As

³³ Johnson & Post compare this development to that of the *Lex Mercatoria* or Law Merchant in the Middle Ages. They argue that virtual worlds face a similar problem to the occurrence of jurisdictional confusion in the Middle Ages, where merchants were unable to take their disputes to the local nobleman. Since the local nobleman was unable to understand the complex subject matter at hand (that was executed beyond his control), the merchants eventually developed a new legal system amongst themselves. The idea behind the *Lex Mercatoria* was that “people who cared most about and best understood their new creation formed and championed this new law, which did not destroy or replace existing law...”. They argue that this same phenomenon is developing in Cyberspace (virtual worlds) at the moment. See Johnson DR & Post DG “Law and Borders - The Rise of Law in Cyberspace” (1996) 48 *Stan L Rev* 1367-1402 at 1389-1390.

³⁴ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 70.

³⁵ I will only deal with the issues applicable to a virtual world created and maintained as a revenue-generating venture by the developers.

³⁶ Jankowich AE “Property and Democracy in Virtual Worlds” (2005) 11 *BUJ Sci & Tech L* 173-220 at 179. See also the discussion about the pitfalls of virtual property in chapter 3 below.

discussed in the chapter on virtual worlds,³⁷ the only limit to the creativity of a developer is imposed by its imagination.³⁸ A developer has the following abilities and *ex officio* capacities.³⁹ Firstly, it has both creative and physical control over the virtual world,⁴⁰ making it omniscient and godlike.⁴¹ Secondly, it can create inherent laws in the virtual world that are totalitarian and mandatorily applicable to all participants. This power is derived from the program code.⁴² In addition to these two capabilities, a developer can also create and manage a virtual legal system by means of the

³⁷ See chapter 2 above.

³⁸ I refer to the company that develops a virtual world in both the singular and the plural, depending on the necessities of the discussion topic. The developer in its singular form is referred to as an inanimate object, since developers are usually corporations. But the need often arises to refer to the developer in the plural when the individuals who collectively make up the corporation are mentioned. Some lone developers could fulfil this function in his or her personal capacity, although the virtual world would most probably not be a commercial enterprise in such a case.

³⁹ For an in-depth discussion of the design procedures and implementation issues from the viewpoint of developers see Morningstar C & Farmer FR "The Lessons of Lucasfilm's Habitat" in Benedict M (ed) *Cyberspace: First Steps* (1991) at <http://www.fudco.com/chip/lessons.html> (12 May 2009).

⁴⁰ "Physical" in this sense means that it can physically control any aspect of the virtual environment and world as it is perceived by the gamer. The developer can reshape, destroy, add to it or totally transform it into something else.

⁴¹ Kunze JT "Regulating Virtual Worlds Optimally: The Model End User License Agreement" (2008) 7 *NW J Tech & Intell Prop* 101-118 at 107.

⁴² Lessig L *Code and other Laws of Cyberspace* (1999) as well as the sequel: Lessig L *Code Version 2.0* (2006); Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 177 and Pollitzer B "Serious Business: When Virtual Items Gain Real World Value" 2007 *SSRN* at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 20.

EULA and TOS.⁴³ Most real world legal relationships that have anything to do with interaction with a virtual world are governed solely by contract.⁴⁴

The use of contract by a developer to regulate its world is not necessarily problematic, but negative effects flow from the way in which developers implement their contracts.⁴⁵ The biggest of these problems seems to be that developers forget that they are not gods or sovereigns. Even though they have virtual sovereignty inside the boundaries of their own creations, they are still themselves subject to the control, regulation and laws of their respective real world governments.⁴⁶

⁴³ Kunze JT "Regulating Virtual Worlds Optimally: The Model End User License Agreement" (2008) 7 *NW J Tech & Intell Prop* 101-118 at 103-104; Edelman P "Framing Virtual Law" 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 4; Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 177; Fairfield JAT "Anti-Social Contracts: The Contractual Governance of Virtual Worlds" (2008) 53 *McGill LJ* 427-476.

⁴⁴ Jankowich extensively discusses the governance issues of virtual worlds. He mentions the problems that developers face when confronted with conflicts between themselves and players. He questions Lessig's assumption that all legal relations in a virtual world are primarily governed by the computer code as law and, if that fails, is governed by the "catch all restrictions of the end user licence agreement ('EULA') or terms of service ('TOS') that participants agree to when joining the virtual world." See Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 177; Lessig L *Code and other Laws of Cyberspace* (1999).

⁴⁵ Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 178; Glushko B "Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds" (2007) 22 *Berkeley Tech LJ* 251-275 at 270.

⁴⁶ Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 179; Balkin JM "Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds" (2004) 90 *Va L Rev* 2043-2098 at 2046.

A different approach to this problem is that the problem does not lie with the fact that developers see themselves as virtual governments, but rather that they see themselves as customer-service providers.⁴⁷ The argument made by Castronova⁴⁸ and supported by Jankowich⁴⁹ is that the problems stem from the nature of the developer's creations. Developers need players to populate the virtual worlds they have created, because a virtual world will be useless without players. This leads to the fact that because the players are taking an active role in the continuous development and running of the virtual world, the players are left with a high level of self-perception. This self-perception is markedly lower in console-type games that do not provide for much player-autonomy and usually do not comprise of a virtual world in the strict sense.⁵⁰ On the other hand, in the virtual world this self-perception stems from the vast self-determination capacity that a virtual world player receives. Indeed, the developer usually actively markets this autonomy as an attractive benefit and selling feature of participating in the virtual world.⁵¹ While the developers try to

⁴⁷ See Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 178 and also Castronova E "On Virtual Economies" (2003) 3 *The International Journal of Computer Gaming Research* at <http://www.gamestudies.org/0302/castronova/> (22 May 2009).

⁴⁸ Castronova E "On Virtual Economies" (2003) 3 *The International Journal of Computer Gaming Research* at <http://www.gamestudies.org/0302/castronova/> (22 May 2009).

⁴⁹ Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 178.

⁵⁰ In other words, the console-game usually would not have all the *indicia* of a virtual world. See the previous chapter for a discussion of the *indicia* or *essentialia*.

⁵¹ For example, the "features" description of *Asheron's Call* contains the following description of what awaits the prospective player: "Welcome to the online role-playing game Asheron's Call, where

regulate their relationship with the players by typecasting their contribution in the virtual world as the provision of a service, the player perceives the developer's role as one of providing a governing function.⁵² Therefore, "in their minds, the players are not customers, but citizens with corresponding rights".⁵³ In effect, the big question is one about rights. How do the parties perceive their rights and obligations, and what is the actual situation? The EULAs and TOS's are perceived as insufficient for regulating the long-term relationships between developers and players.⁵⁴ These agreements fail to provide for all the needs of the participants and the *ad hoc* rule-making that developers use to address issues not covered in the EULA or TOS often results in unsatisfactory and arbitrary solutions.

thousands of players inhabit a beautiful 3D fantasy world to make friends and seek out perilous adventure. Customize your alter ego with a unique appearance and balance of heroic skills, then enter a magical frontier of terrible monsters, breath-taking (*sic*) vistas, and fast alliances. With over 500 square miles that offer ever more wonders to explore, Asheron's Call gives you a world of unparalleled scope and freedom, the richest setting yet for creating your personal saga or joining your friends in an epic campaign." See Asheron's Call "About Asheron's Call: Features" (2009) *Asheron's Call* at http://ac.turbine.com/index.php?option=com_content&view=category&layout=blog&id=34&Itemid=64&NavItemid=56 (05 Dec 2009).

⁵² Castronova E "On Virtual Economies" (2003) 3 *The International Journal of Computer Gaming Research* at <http://www.gamestudies.org/0302/castronova/> (22 May 2009).

⁵³ Castronova E "On Virtual Economies" (2003) 3 *The International Journal of Computer Gaming Research* at <http://www.gamestudies.org/0302/castronova/> (22 May 2009). This idea was already present in the early days of the development of virtual worlds, see Koster R "Declaring the Rights of Players" 2000 *Raph Koster's Website* at <http://www.raphkoster.com/gaming/playerrights.shtml> (22 May 2009) and Koster R "The Man Behind the Curtain" 1998 *Raph Koster's Website* at <http://www.raphkoster.com/gaming/essay5.shtml> (22 May 2009).

⁵⁴ Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 178.

Although I agree in principle with the position taken by Castronova and Jankowich, I think that the problem lies more in the way that developers see players not as the recipients of services but as their subjects; which they can both govern and control from their omnipotent position. In the real world, the gamer would be seen as a consumer who could in certain instances be protected by real world law to help equalise the skewed relationship between consumer and developer.⁵⁵ However, in the virtual world the developer is equal to the enterprise, government, and god.⁵⁶ In effect, the developer inherently acquires the role of judge, jury and executioner of the gamer. It seems as if it is because of this feeling of powerlessness that players seek help outside of the governance structure of the virtual world when they feel that their in-game rights are being limited too much.⁵⁷ Jankowich stresses this fact when he states that the “absence of a robust legal system in a complex environment like a

⁵⁵ See Balkin JM “Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds” (2004) 90 *Va L Rev* 2043-2098 at 2048-2050.

⁵⁶ Kunze JT “Regulating Virtual Worlds Optimally: The Model End User License Agreement” (2008) 7 *NW J Tech & Intell Prop* 101-118 at 107; Jankowich AE “Property and Democracy in Virtual Worlds” (2005) 11 *BUJ Sci & Tech L* 173-220 at 185; Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 5. For a more comprehensive discussion of what Grimmelmann refers to as “The God Problem”, see Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184 at 174.

⁵⁷ Jankowich AE “Property and Democracy in Virtual Worlds” (2005) 11 *BUJ Sci & Tech L* 173-220 at 179.

virtual world inhabited by people with very limited rights will lead those people to search for environments where they have greater power.”⁵⁸

There are a number of reasons why this disparity between the gamer and developer came to pass, and why it still exists. In order to understand the position it is necessary to investigate the position from the viewpoint of both the developer and the gamer.⁵⁹

There are various reasons why developers want to have as much control over the virtual world as they can get.⁶⁰ The developer might have differing levels of influence and governing control at five stages. The first stage is the creation of the virtual world. The second is the testing and deployment stage. The third is the stage that occurs during the normal running of the virtual world. The fourth stage is the maintenance stage. Finally, there could be a stage where the virtual world is destroyed.

⁵⁸ Jankowich AE “Property and Democracy in Virtual Worlds” (2005) 11 *BUJ Sci & Tech L* 173-220 at 179.

⁵⁹ Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 9-12; Balkin JM “Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds” (2004) 90 *Va L Rev* 2043-2098 at 2047-2052.

⁶⁰ Bartle RA *Pitfalls of Virtual Reality* (2004) 1-23 at 9-13; See in general: Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51.

The developer needs to have creative control to create the world and to make sure that it is functioning properly.⁶¹ While the virtual world is being developed this is only of interest to the developer and does not affect anyone else. If the developer is held back in any way during this creative phase, the virtual world would ultimately not come into existence and the legal question would remain moot. Even though the players do not really have an interest in the game at this stage, the state and community in the real world where the developer is located might have a legitimate interest in the development of the virtual world.⁶² If the topic, idea, theme or implementation of the virtual world is *contra bonos mores*, or even criminal, the state and society will have the power to censure and possibly stop the further development of the virtual world.⁶³

⁶¹ Bartle RA *Pitfalls of Virtual Reality* (2004) 1-23 at 9-13.

⁶² Balkin JM "Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds" (2004) 90 *Va L Rev* 2043-2098 at 2048-2050, 2053.

⁶³ Although this might sound like a highly theoretical issue, there are a number of games that were developed and marketed with themes that are so abhorrent that even in a liberal society, they are viewed as not only extremely distasteful, but possibly criminal in some states. Examples that spring to mind are the games where the "hero" of the game's sole purpose is to rape women. Another game puts the player in the shoes of a terrorist who has the liberty of killing many innocent civilians at an airport. For more detail about these and other games see: Van der Byl T "5 Most Offensive Games Ever" 2009 *Mygaming.co.za* at <http://www.mygaming.co.za/news/news/4863-Most-Offensive-Games-Ever.html?print> (23 Nov 2009). Another area where the state might want to interfere at this stage is where the state decides that the general idea or effect of the game would be against state policy. Such an example is the way that China is hindering the launch of the new *WOW* expansion. Certain elements of the game were seen as unacceptable for the government. For example, skeleton characters were not allowed. See AFP "China Tightens Supervision of Online Games" 2009 *AFP* at

During the testing phase of the virtual world, the developer needs to constantly make changes to and fine-tune the program code. Some unexpected error might occur and unintended things could happen in the virtual world. At this stage, the developer approaches either the public or a select group of gamers to test the game in its *beta* or testing state.⁶⁴ The developer always makes it clear that the virtual world is a work in progress and players should expect that their gameplay experience would be interrupted. The virtual world can be reset or reverted to the initial stages at any time. At this stage, the program does not qualify as a virtual world because it is non-permanent.⁶⁵ The gamers who take part in this testing stage do so voluntarily and usually do not pay for the privilege of being the first people to experience the new virtual world. The developers make it quite clear that the gameplay might change drastically at any stage and that the levelling of avatars during the testing phase could at any time revert to the initial stages.⁶⁶ Developers also explicitly state that the items acquired by players during the testing stages will

<http://news.google.com> (06 Dec 2009). Also compare fn 175 below. For a discussion of how developers try and deal with the above issues by means of self-regulation see Gray GC & Nikolakakos T “The Self-Regulation of Virtual Reality: Issues of Voluntary Compliance and Enforcement in the Video Game Industry” (2007) 22 *CJLS* 93-108.

⁶⁴ See for example Bioware “Star Wars: The Old Republic Game Testing FAQs” 2011 *Star Wars: The Old Republic* at <http://www.swtor.com/tester> (05 July 2011).

⁶⁵ For more details about the characteristic of permanence/persistence see the discussion about the characteristics of a virtual world in chapter 2 at 2.4.3.

⁶⁶ An explicit notice to this effect is normally incorporated into the trial version’s EULA.

not be transferred to the world when it launches for the broad public.⁶⁷ During the testing stages, these items might disappear at any time from the avatar's collected possessions. Neither avatars nor players therefore enjoy protected rights.

When the virtual world is functioning properly and the public has started participating in it, the developer still needs to manage the general administrative tasks required by a virtual world. Disputes between gamers need to be arbitrated when they have concerns about issues affecting the virtual world or the interests of the developers. The developer must be able to take action against players whose actions create problems for other players or have detrimental effects for the virtual world, or that could create problems regarding real world state-regulation.⁶⁸ Any

⁶⁷ For example, the Game Testing Terms and Conditions for Star Wars: The Old Republic state that "(L) You acknowledge and agree that BWA reserves the right to change/add/remove items collected or updated, modify or remove any items in the Game at any time and without warning." See Bioware "Game Testing Terms and Conditions for Star Wars: The Old Republic:" 2011 *Star Wars: The Old Republic* at <https://account.swtor.com/user/register/> (05 July 2011).

⁶⁸ WoW's EULA states that one is not allowed to "...use cheats, automation software (bots), hacks, mods or any other unauthorized third-party software designed to modify the World of Warcraft experience..." 2.B. Additional Licence Limitations: Blizzard "World of Warcraft - End User License Agreement" 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009). Another reason why a developer would want to include a clause to this effect will be to be compliant with the laws of the state where the server is hosted. See for example the disclaimer by Second Life about it being a US based service: "13.1 Second Life is a United States-based service. Linden Lab makes no representation that any aspect of the Service is appropriate or available for use outside of the United States. Those who access the Service from other locations are responsible for compliance with applicable local laws. The Linden Software is subject to applicable export laws and restrictions." See 13. General Provisions: Linden Lab "Terms of Service - Second Life" 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011). Some of the modifications (mods) or hacks

problems that crop up on a daily basis due to the expansion of the virtual world and the unintended development of certain in-game elements that have appeared must be managed and fine-tuned.⁶⁹

There is always some sort of daily maintenance occurring in the virtual world. However, sometimes something more substantial needs to be done by the developer for the virtual world to stay stable or to grow. In the highly competitive market of

are often used to render the avatars nude or to enable the avatars to engage in sexual practices. See in general: Williams N “World of Warcraft Nude Mods and Clothing Patches” 2008 *Vox ex Machina* at <http://www.voxexmachina.com/mods/world-of-warcraft-nude-mods-and-clothing-patches/> (21 Oct 2010); Jackson M “WoW Police Hunting down Sexual Role-Play” 2010 *CVG* at <http://www.computerandvideogames.com/article.php?id=258879> (21 Oct 2010). Also compare fn 60 above.

⁶⁹ This would be the case where some type of error or omission in the programming is (legally) exploited by a number of players. If it is creating problems for the virtual world it would need to be rectified. An example is the case of *Bragg v Linden Research Inc* 487 FSupp 2d 593 (ED Pa 2007) in *Second Life*, where Bragg found a way to bypass the normal virtual real estate auctioning system and exploited this to his benefit by buying virtual land at rock-bottom prices. When the developers discovered this exploit, they closed the loophole and froze all of Bragg’s assets in the game. For more detail and background on the Bragg-case see: Taggart G “A Virtual Property Dispute - ANALYSIS: Bragg v. Linden et al” 2007 *The Seventh Sun* at http://theseventhsun.com/0607_braggAnalysis2.htm (12 March 2008); Craig K “Second Life Land Deal Goes Sour” 2006 *Wired.com* at <http://www.wired.com/gaming/virtualworlds/news/2006/05/70909> (12 March 2008); Cheng J “Second Life ‘Land’ Dispute Moves Offline to Federal Courtroom” 2007 *Ars Technica* at <http://arstechnica.com/tech-policy/news/2007/06/second-life-land-dispute-moves-offline-to-federal-courtroom.ars> (12 March 2008). See also Kunze JT “Regulating Virtual Worlds Optimally: The Model End User License Agreement” (2008) 7 *NW J Tech & Intell Prop* 101-118 at 102. This could be especially troubling where there are minors who also participate in the virtual world. Developers therefore use this clause to enforce compliance with their rules and give them the right to censor or prohibit certain behaviour.

MMORPGs, a developer needs to fine-tune a virtual world continually to keep the players resident there. One of the ways to achieve this is by implementing a “patch”⁷⁰ to the client-side program that runs on the player’s computer. Sometimes this takes the form of an automatic update from the developer’s servers when the player logs onto the game. It could also take the form of either an optional or a mandatory piece of software that players have to download from the server and update by themselves. Sometimes this is sufficient to address maintenance problems, without affecting the general game experience for the player. However, this procedure could also be used by a developer to force players to accept changes that they would not ordinarily have accepted. In many instances, such a patch includes an updated version of the EULA or TOS that players must accept before they can continue playing. In other instances, the patch makes certain substantial changes to elements of the virtual world that players would find intrusive on their rights.⁷¹ Such a patch

⁷⁰ A patch in this sense refers to an additional piece of software that is released after the initial launch of the main program. This “patch” is then used to fix any problems that have manifested in the meantime. It could also be used to improve or change certain minor elements of the program.

⁷¹ For example, *WoW*’s EULA states that: “Blizzard may deploy or provide patches, updates and modifications to the Game that must be installed for the user to continue to play the Game. Blizzard may update the Game remotely including without limitation the Game Client residing on the user’s machine, without the knowledge of the user, and you hereby grant to Blizzard your consent to deploy and apply such patches, updates and modifications”: 9. Patches and Updates: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009). Another aspect dealing with patches, updates and modifications to the game is that the EULA and TOS are often updated with those patches. Although it does not happen every time, a player is sometimes notified that he or she has to accept the updated EULA at the installation stage of such a new patch. In reality, according to personal experience and anecdotal

forces a player to accept changes a developer wants to make to the game. These changes will need to be implemented on a player's computer before he or she will be able to continue participating in the game. Although this is not usually a problematic issue, it could lead to abuse.

Sometimes it may be necessary or inevitable that a virtual world faces a digital Armageddon and shuts down forever. This has happened in a few instances, the shutdown of *The Sims Online*⁷² being a prominent example. Even though this is a highly undesirable situation for the players, a developer would like to know that it could shut down the game if necessary. Some developers feel so strongly about this that they include a dedicated clause in the EULA giving them the right to discontinue the virtual world at their discretion.⁷³ Developers sometimes even like to shut down a

evidence, almost no player or computer-user ever reads any of the EULAs and players just scroll down through all the legalese and then click on the famous "I Agree" button in order to continue playing the game. See in general: Gatt A "Electronic Commerce – Click-Wrap Agreements: The Enforceability of Click-Wrap Agreements" (2002) 18 *CLSR* 404-410. A developer can therefore change the EULA in its totality without the players even being aware of it; or being able to do anything about it. This is one way in which a developer could also constructively force a player to abandon his virtual property interests. If a developer announces in the new EULA being forced on the players that from now on all items held by players are to disappear, the players will be helpless in economic terms. They would only be able to protest such actions by staging a mass exodus from the virtual world that could lead to the eventual collapse of the virtual world as an economic enterprise.

⁷² See chapter 2 for more details at 2.2.3.

⁷³ For example, *WoW's* EULA states that "(t)his License Agreement is effective until terminated. You may terminate the License Agreement at any time by (i) permanently destroying all copies of the Game in your possession or control; (ii) removing the Game Client from your hard drive; and (iii) notifying Blizzard of your intention to terminate this License Agreement. Blizzard may terminate this

Agreement at any time for any reason or no reason. Upon termination for any reason, all licenses granted herein shall immediately terminate and you must immediately and permanently destroy all copies of the Game in your possession and control and remove the Game Client from your hard drive.” See 7. Termination: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009). The termination clause fulfils an essential function in the governing of a virtual world. It gives certainty to the developer about the point at which the contractual relationship between it and the player has come to an end. However, this specific termination clause does not provide any certainty to the contract. The requirement that is expected of the player to publicise termination of the agreement is problematic. It is unclear whether any single action specified above, i.e. destruction, removal or notification is the essential element to publicize this fact. Due to the unclear semantics, it could be construed that any of these actions could constitute such publication. If all three requirements are met, it creates a massive onus on the player. The transfer clause discussed above did not require that the developer be notified of the transfer. It now seems strange that the termination would require such explicit notification. Even more problematic for the player is the fact that the developer gives itself not only the right to terminate the agreement at any time, but also to do so for “any reason or no reason.” Such clauses that clearly put the player at a disadvantage could be construed to be *mala fide* and *contra bonos mores*. While a person may shrug such imperious tactics off when it only applies to issues inside a virtual world, this clause also has a cross-border element. The contract affects the player-developer relationship in the real world and not only in the virtual world. If one were to accept the value of virtual property interests and vested economic, social and sentimental value that a player has in a virtual world, such actions by developers could lead to gross misuse. Problems like “expropriation” of virtual property interests would appear and the affected player(s) would need to be able to find redress somewhere. Nothing in the clause includes references to a form of compensation or other remedy that a player can rely upon if the developer chooses to end the agreement. At the very least one should expect that a player whose licence has been unfairly or otherwise terminated by a unilateral action from the developer should be able to get compensation for the physical game media that he or she could lose. See the discussion about remedies in chapter 7 at 7.2, where the possibility of real world protection for virtual property interests is discussed from both a private- and a constitutional law viewpoint.

virtual world for purely financial reasons.⁷⁴ For example, the costs of operating a virtual world that is underperforming as a financial investment could be better spent on another project or virtual world. Shareholders in the developer might also demand that funds be re-invested in other ways. This makes financial and logical sense for the developers and if one takes into account the nature of the contractual agreement between the player and developer, this should not be an issue. However, due to the nature of the virtual world as a vehicle for social interaction and considering that it is often designed to be addictive, it can be argued that a developer has a corporate and social responsibility to continue supplying players with access to the virtual world that they have come to rely on.⁷⁵

Players would of course not like to see their virtual world destroyed in front of their eyes; they would like to participate in the decision-making process before this happens. Sometimes they might even be in a position to help rescue a virtual world if there are financial problems, or else they could keep it running themselves.⁷⁶

⁷⁴ See the discussion in chapter 4 at 4.4 about the implications of these actions when viewed from a normative perspective as a consideration for the justification of allocating property rights in virtual resources or not.

⁷⁵ See the discussion about the social elements and effects of virtual worlds in chapter 4 at 4.3. Many of these virtual worlds and games are intentionally designed to be addictive and therefore developers should be held accountable for the wellbeing of the players if and when they decide to end a virtual world. See also the general discussion by Reuveni of the fact that virtual worlds are more than just entertainment: Reuveni E "On Virtual Worlds: Copyright and Contract Law at the Dawn of the Virtual Age" (2007) 82 *Indiana LR* 261-308 at 303.

⁷⁶ Bartle RA *Pitfalls of Virtual Reality* (2004) 1-23 at 12-13. When the virtual world of *Earth and Beyond* shut down, the players attempted to buy the hardware and software from the developer to

However, a developer needs to control its intellectual property and usually makes it clear that players are not allowed to use its code for non-licensed purposes. Developers are faced with a distinct challenge in this regard, since players often get their hands on the source-code of the virtual world and sometimes run their own unlicensed servers. Players can create their own copy of the virtual world environment on these unlicensed servers. Even though these unlicensed servers do not interact with the properly licensed version of the virtual world, many players are content to make use of them.⁷⁷ The existence of unlicensed servers represents more of a problem for virtual worlds that cater for *ad hoc* multiplayer games than for those that are socially orientated.

One other party to a virtual world who might be instrumental in the operation of a virtual world is the real world state. It is expected that as soon as anything regarding the virtual world acquires extra-territorial effect (i.e. outside the virtual world) the government has jurisdiction to interfere with the governance of the virtual world. The

ensure the continuation of the world. However, the developer could not be convinced to sell. There is an increasing movement to preserve virtual worlds when they are either terminated or have become defunct. For example the Library of Congress is funding a project called "Preserving Virtual Worlds" which is exploring ways and methods that can be used to preserve virtual worlds after their digital sell-by dates. See Kramer-Smyth J "Preserving Virtual Worlds - TinyMUD to SecondLife" 2007 *Spellbound Blog* at <http://www.spellboundblog.com/2007/08/17/preserving-virtual-worlds-tinymud-to-secondlife/> (22 May 2009).

⁷⁷ This would only be a satisfactory solution if players decide to join such an unlicensed server without any benefit from their previous playing experience on the proper virtual world server. They would have to recreate their avatars from scratch, level up from the start and also have to start accumulating all their virtual property from the beginning.

real world government may in certain instances not only be able to, but in fact be obliged to step in and take control of a virtual world for the benefit of the public.⁷⁸

3 5 Case law

3 5 1 Introduction

In this section, a number of reported cases relating to virtual property are discussed. The jurisdictions covered are those featuring most prominently in the news and academic literature. From these cases, it becomes clear that, at least for the moment being, virtual property interests are mostly protected by recourse to criminal law. There are one or two exceptions, but it would seem as if this is possibly the way that mainstream acceptance and protection of virtual property will initially be achieved. A common theme in these cases is the reasons given by the courts for being prepared to protect virtual property interests, namely that the virtual property must have value and that in some cases this value must be quantifiable, while in others purely sentimental value might suffice.

⁷⁸ One such case would be if the destruction of the virtual world would have a measurable direct impact on the economy of the real world state or the well-being of its inhabitants.

3 5 2 China

Asian legal systems have been quick to recognise and protect virtual property. To date, a number of cases dealing explicitly with virtual property have emerged from China, where the online gaming population has reached more than 40 million players. The central issue featuring in most of the Chinese cases is whether the virtual items can be attributed a quantifiable value, which would enable the claimant to recover damages or could serve as the basis of criminal prosecution for theft.⁷⁹

In the first case of *Li Hong Chen*⁸⁰ the Beijing's Chaoyang District People's Court ordered that a virtual-world developer had to return virtual property to a player who had his account hacked.⁸¹ The hackers gained access to his account and looted it of all valuable virtual assets. The gamer in question (Li) had spent two years of his time and roughly \$1200 (US)⁸² on pay as you go cards to play the game. In the process he collected weapons and managed to increase the level and status of his character in the game *Honyue*, also known as *Red Moon*. Li sued Arctic Ice, Red Moon's

⁷⁹ Ma M "Online Games and Virtual Property" 2009 *Martindale-Hubbell* at http://lawyers.martindale.com/internet-law/article_Sheppard-Mullin-Richter-Hampton-LLP_689960.htm (05 Oct 2009) discusses the five leading Chinese virtual property cases. Due to the difficulty of finding translations of the cases in English, I rely solely on the article by Ma.

⁸⁰ *Li Hong Chen*, Feb 2003 Chaoyang District Court. See Ma M "Online Games and Virtual Property" 2009 *Martindale-Hubbell* at http://lawyers.martindale.com/internet-law/article_Sheppard-Mullin-Richter-Hampton-LLP_689960.htm (05 Oct 2009).

⁸¹ This case is one of the very few where a court has recognised and protected virtual property interests via civil rather than criminal law.

⁸² Approximately 10 000 yuan.

developers,⁸³ using a combination of contract and consumer protection remedies in a claim for damages for mental harm and for loss of the stolen property. The court found the developers liable for the loss suffered by the player due to security loopholes in their software that enabled the hackers to steal the player's property.⁸⁴ The court reasoned that as a service provider, the developer was responsible for the player's property in the game. The court found that the value of the property and not its virtual nature was the determining factor that qualified the items as property. Because the player gave consideration for the items, Li was entitled to certain rights in the property. However, the court found it hard to quantify the monetary value of the stolen property and ordered the developers to restore the items instead of paying monetary compensation.

The second case that is of interest is *Chen Xiao Fan*.⁸⁵ Chen was an employee of a virtual world developer and worked on the game of *Westward Journey Online II*. He abused his position and stole virtual items from accounts in the game, which he then sold to other players for a profit. He was prosecuted and found guilty of theft of goods. The court equated the virtual items with tangible goods because of their

⁸³ Arctic Ice Science and Technology Inc (Arctic Ice).

⁸⁴ See Ma M "Online Games and Virtual Property" 2009 *Martindale-Hubbell* at http://lawyers.martindale.com/internet-law/article_Sheppard-Mullin-Richter-Hampton-LLP_689960.htm (05 Oct 2009), where Ma discusses the five leading Chinese virtual property cases.

⁸⁵ *Chen Xiao Fan*, Aug 2006 Guangzhou Tianhe District Court. See Ma M "Online Games and Virtual Property" 2009 *Martindale-Hubbell* at http://lawyers.martindale.com/internet-law/article_Sheppard-Mullin-Richter-Hampton-LLP_689960.htm (05 Oct 2009).

valuable nature. The court highlighted the fact that the items were transferable between players and that players found the items valuable. Chen was found guilty of theft, but was released without serving any gaol time.

The last Chinese case that should be mentioned here is *Zhang Bin*.⁸⁶ Zhang was a reseller of accounts for the virtual world game of *Paradise*. After selling the accounts to buyers, he proceeded to steal the accounts back from them. He was charged with and convicted of theft. The court found that because the accounts were virtual property, controllable and had value, the accounts were capable of being the objects of theft. Zhang was sentenced to a monetary fine and a year of gaol time that was suspended for two years.

From the examples above, it is clear that the Chinese courts focus on the fact that virtual property has value and that virtual property is transferable between players. The intangible nature of virtual property is not regarded as a determining factor in deciding whether to protect the items, at least not against theft. The Chinese court have shown itself willing to accept the property interests in virtual property and protect these interests by both civil and criminal sanctions.

⁸⁶ *Zhang Bin*, Ningbo Haishu District Court (date unknown). See Ma M “Online Games and Virtual Property” 2009 *Martindale-Hubbell* at http://lawyers.martindale.com/internet-law/article_Sheppard-Mullin-Richter-Hampton-LLP_689960.htm (05 Oct 2009).

3 5 3 South Korea

In South Korea, more than forty percent of teenagers spend their time in online virtual worlds and the country has the greatest per capita adoption of broadband internet.⁸⁷ There have been a huge number of South-Korean cases dealing with virtual property. Most of these cases concern incidents where one player forced another player to transfer virtual property to his avatar in the virtual world. As a result, more than 22000 cybercrime reports relating to virtual property were reported to police in 2003 and 10187 teenagers were arrested for virtual property theft in a single year.⁸⁸

Yoon, a Korean judge, did an in-depth analysis of Korean cases dealing with virtual property and examined 480 convictions of theft of virtual property.⁸⁹ He concludes that EULAs that ban real world money trade (RMT) in virtual goods are of doubtful legal validity and also unfair since they infringe heavily on the players' rights to the virtual property.⁹⁰

⁸⁷ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1088.

⁸⁸ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1088.

⁸⁹ Yoon U "Real Money Trading in MMORPG Items from a Legal and Policy Perspective" 2004 *SSRN* at <http://ssrn.com/abstract=1113327> (05 Nov 2009).

⁹⁰ Yoon U "Real Money Trading in MMORPG Items from a Legal and Policy Perspective" 2004 *SSRN* at <http://ssrn.com/abstract=1113327> (05 Nov 2009) 1-59 at 50.

3 5 4 The Netherlands

Western legal systems have not developed as far as their Asian counterparts in the area of protection and recognition of virtual property, although there have been some promising recent developments. A Dutch court has now provided guidance in a new case that highlights the importance of virtual property and gives a glimpse of the possible direction that the future recognition of virtual property might take in the West.

In 2008, a Dutch court accepted in the *Runescape*⁹¹ case that when someone's virtual property is stolen there must be a protectable property right that was infringed upon. The case was heard in Leeuwarden, by a full bench criminal court of the first instance (district court). Two Dutch teens were convicted of stealing virtual game items from another teen. All three of the boys played the game *Runescape*, which is a large virtual world with millions of players. What is especially interesting about this case is that the boys not only stole the virtual items, but also did it by using extreme

⁹¹ LNJ: BG0939, Rechtbank Leeuwarden, 17/676123-07 VEV. I name this case after the game where the virtual property is cited. In 2009 another instance of theft of virtual property occurred. This is often referred to as the *Habbo-Hotel* case, named once again after the virtual world where the property was located. However, although this instance is often cited in the media as an example of the theft of virtual property, the Court did not address the issue of whether the stolen property would qualify as property in terms of the criminal code. Instead, it focused on the act of hacking into the accounts of others in order to commit the theft. Ultimately the Court found that even though the accused was guilty of hacking, the parties who suffered loss of their property would have to institute civil claims against the accused in order to recover their property. LNJ: BH9789, Rechtbank Amsterdam, 13/431516-08. See also Erlank W "The Legal Acceptance of Virtual Property" 2010 SSRN at <http://ssrn.com/abstract=1591384> (28 Apr 2012).

force. They beat the other boy up, threatened him with a knife and forced him to log into *Runescape* and transfer his virtual property items to their own *Runescape* accounts. It would have been easier for the court just to convict the two boys of assault and leave the matter at that. However, the court chose to deal with the facts as argued by the prosecutor, namely that the boys stole virtual property. After analysing the facts of the case and the applicable sections of the legislation,⁹² the court found that the stolen property did in fact fulfil all the requirements of being classified as goods⁹³ (*goed*) or property, as it is defined in the Dutch Criminal Code. Some of the criteria that the court found to be relevant were the following: Before something can be classified as “*goed*” under the law, it must have value for the possessor of it. The value does not have to be quantifiable in monetary terms.⁹⁴ The court referred to the fact that virtual worlds have become a huge phenomenon and that players attach a lot of value to their virtual goods (*virtuele goederen*). The court found that the virtual property had value for both the complainant and the accused boys and stated that the items did not need to be physical items (*stoffelijke voorwerpen*). It could be equated to electricity and money held in an account (*giraal geld*), which were already protected as goods (not things) in the Netherlands. Another important aspect is that there has to be transfer of factual (not physical)

⁹² Article 310 of the Criminal Code (*Wetboek van Strafrecht*).

⁹³ In Dutch law, the classification includes immaterial things and thus have a broader meaning than just being *zaken* or things.

⁹⁴ From this I infer that it would be possible to include items with purely sentimental value in this definition.

control from the accuser to the accused. The sentence was one of community service for 160 hours that had to be completed within 12 months. The important aspect of this case is that a Western court was willing to recognise that there is such a thing as virtual property and that it is important enough to protect. Subsequently this case was taken on appeal to the *Hoge Raad* (Supreme Court), where the decision pertaining to and the interpretation of the virtual goods as protectable property was confirmed.⁹⁵

3 5 5 Conclusion

It is clear from this brief analysis of case law that courts are starting to take virtual property seriously. They recognise the need to protect the virtual property interests that people have in their virtual property and find that the most important characteristic that virtual property must have in order to qualify for protection is that it must be considered to have value. In some cases, this value must be quantifiable, but there are also indications that possible sentimental value would be sufficient reason to qualify a virtual property item as worthy of protection. However, it is interesting to note that this protection of property is achieved by the relatively primitive strategy of using criminal law. This is possibly due to the fact that the contractual rights⁹⁶ that players acquire to their virtual property are too weak to

⁹⁵ LJN: BQ9251, Hoge Raad, CPG 10/00101 J.

⁹⁶ The contractual rights contained in EULAs are discussed below at 3.6.

provide proper protection. This would suggest that there is a lack of development in this area and would provide one of the reasons to strengthen protection of virtual property by means of property rules.

3 6 Contracts: EULAs and TOSs

3 6 1 Introduction

Most developers make use of a combination of “End User Licence Agreements” (EULAs) and “Terms of Service” (TOS) to create the contractual relationship between themselves and the virtual world participants or players.⁹⁷ The EULA is generally employed to determine the rights and obligations that players get from playing the game. This instrument also purports to regulate the player-developer relationship contractually in the real world.

The TOS on the other hand is normally used as a yardstick against which player behaviour can be measured. It implements norms that should be used by all gamers as a guideline to determine how they may and may not act inside the virtual world.

⁹⁷ See in general Miller DC “Determining Ownership in Virtual Worlds: Copyright and Licence Agreements” (2003) 22 *Rev Litig* 435-447; Edelmann P “Framing Virtual Law” 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org:8080/Plone/dl/db/06278.45351.pdf> (8 August 2011) 1-10 at 4; Denapolis K “Real Concerns in Virtual Property” 2005 *SSRN* at <http://ssrn.com/abstract=1154234> (10 Oct 2009) 1-39 at 10.

Although the two contractual mechanisms may seem very different, they are usually closely related and developers often state that the EULA includes the TOS by reference and vice versa. The two legal documents tend to mirror each other to a large degree, with only some paragraphs left out in the one, or included in the other. These instruments are sometimes referred to as click-wrap agreements⁹⁸ because they force a player to accept the whole content of the contract by clicking on a button that normally says, "I agree".⁹⁹ The player is left with only two choices when confronted by the EULA or TOS: she clicks on the "I agree" button and accepts all the terms of the contract, or she can refuse to progress with the installation of the client software, as a result of which she will not be able to access the game. The "wrap" part refers to the contract that a player or consumer agrees to enter into when purchasing merchandise (usually software) where some form of seal on the wrapping has to be broken to access the contents. By breaking the seal the player advertises her intention to enter into the contract.¹⁰⁰

⁹⁸ These agreements are similar to shrink-wrap agreements. Both click-wrap and shrink-wrap agreements are examples of contracts of adhesion. See in general Pistorius T "Click-Wrap and Web-Wrap Agreements" (2004) 16 *SA Merc LJ* 568-576.

⁹⁹ See for example the concluding statement to *WoW's* EULA, which states that "I hereby acknowledge that I have read and understand the foregoing License Agreement and agree that by clicking 'Accept' or installing the Game Client I am acknowledging my agreement to be bound by the terms and conditions of this License Agreement": Blizzard "World of Warcraft - End User License Agreement" 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹⁰⁰ This seems to be an accepted method of expressing intent to enter into a contract under South African law. Sec 24(2) of the Electronic Communications and Transactions Act 25 of 2002 (ECT Act) is construed by Pistorius as "being designed to include statutory recognition of the click-wrap and

With a EULA and TOS, the developers retain the right for themselves unilaterally to change the contents of the contracts. If a player does not like this, the only available remedy is to stop participating in the game. Even though this might sound like an unfair practice and possibly immoral and illegal, the considerable number of judgments on this aspect make it clear that developers are allowed to make use of such agreements and that they are legal and enforceable.¹⁰¹

The biggest distinction between the EULA and the TOS is that while the EULA is designed to regulate the legal relationship between player and developer in the real world, the TOS is usually designed to regulate that same relationship inside of the virtual world.

The EULA is arguably the most important source of virtual law that exists at the moment.¹⁰² It fulfils a binary function. In the virtual world, it is a primary source of law

web-wrap mechanisms for expressing intent, but it is nevertheless open-ended and neutral.” See Pistorius T “Monitoring, Interception and Big Boss in the Workplace: Is the Devil in the Details?” (2009) 12(1) *PELJ* 1-27 at 18.

¹⁰¹ This was decided in the USA in cases like *ProCD v Zeidenberg* 86 F3d 1447 (7th Cir 1996) and *Groff v America Online, Inc (AOL)* 1998 WL 307001 (RI Super May 27 1998), amongst others. For more information about this topic, case discussions and some good background discussions see Harvard Law School “E-Commerce: An Introduction” *Berkman Center for Internet & Society* at <http://cyber.law.harvard.edu/ecommerce/transactions.html> (06 Dec 2009).

¹⁰² Jankowich AE “Property and Democracy in Virtual Worlds” (2005) 11 *BUJ Sci & Tech L* 173-220 at 177. See also Glushko B “Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds” (2007) 22 *Berkeley Tech LJ* 251-275 at 252; Pollitzer B “Serious Business: When Virtual Items Gain Real World Value” 2007 *SSRN* at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 19, 22; Kunze JT “Regulating Virtual Worlds Optimally: The Model End User License Agreement” (2008) 7 *NW J Tech & Intell Prop* 101-118 at 103. Denapolis also gives an interesting description of how the

that regulates and legislates player behaviour between the players themselves and that creates the legal relationships between players and developer. It also regulates the legal relationship between the player and developer in the real world.¹⁰³ Contrary to the non-circumventable law derived from the source code of the program, many rules contained in the EULA are not enforceable in the game by the code.¹⁰⁴ This is due to the nature of the rules that tend to deal more with cross-world relationships between player and developer than in-game code-based laws.

To understand the effect that a EULA/TOS combination has as a source of virtual law, I will look at the EULA/TOS combination of the two largest and most important virtual worlds that I use in this research. This is the virtual world of *World of Warcraft* (WoW) and that of *Second Life*. It is illuminating to analyse certain clauses of the EULA and TOS to see how these instruments try to anticipate and deal with both real world and virtual world problems. As mentioned above, the TOS¹⁰⁵ mostly regulates the in-game relationship between the player and developer, as well as the relationships between players inside the virtual world.

The TOS tends to overlap with the EULA and usually contains a large collection of regulatory material addressing ownership of in-game virtual items, control and

legal relationships in virtual worlds work: Denapolis K "Real Concerns in Virtual Property" 2005 SSRN at <http://ssrn.com/abstract=1154234> (10 Oct 2009) 1-39 at 10.

¹⁰³ See in general: Fairfield JAT "Anti-Social Contracts: The Contractual Governance of Virtual Worlds" (2008) 53 *McGill LJ* 427-476.

¹⁰⁴ See the discussion about code-as law above at 3.2.

¹⁰⁵ In *WoW* the TOS is referred to as the Terms of Use Agreement (TOU).

ownership rights in the account and a comprehensive code of conduct to which the player is bound. The EULA and TOS fulfil the same function and the relationship between the developer and player is regulated in the same manner as in the EULA.

In *Second Life*, the TOS fulfils much of the same functions as the EULA together with the TOS in *WoW*. The biggest difference between the two is that in *WoW*, Blizzard tries to remove all possible rights that a player might have regarding in-world virtual property, as well as almost all the obligations that Blizzard might possibly have towards the player. In contrast, Linden Lab has chosen explicitly to give players the illusion¹⁰⁶ of having certain property rights to the virtual world property in *Second Life*. However, even though this is the principle behind most of *Second Life*, Linden Lab tries to restrict the effect of acceptance of these virtual property rights to the virtual world.

¹⁰⁶ Since I have started writing this dissertation, the position taken by *Second Life* has changed quite a bit. This is reflected in the different versions of the TOS which Linden Lab has implemented during the past 3 years. With each new version of the TOS the concept of having property rights *in Second Life* has been watered down and the amount of legalese and sub-clauses has grown. In the final version of 2010 (to which I will be referring in the following section) Linden Lab has continued to dilute the concept of virtual property by just leaving a player with the illusion that he or she has any property rights in the virtual world. See the discussion below dealing with ownership and transfer issues.

3 6 2 EULA of *WoW*¹⁰⁷ and TOS of *Second Life*

3 6 2 1 Introduction

World of Warcraft is a levelling¹⁰⁸ game where the focus is on the playing of the actual game (the gameplay). Consequently, it is classifiable as a virtual world that was created solely for entertainment purposes. The developer of *WoW* (Blizzard), who also manages the virtual world, created it with the ultimate intent that it should be a commercial enterprise. Even though it could be viewed by the players as “just a game”,¹⁰⁹ it is undeniable that the developer will view it as a commercial venture. It is clear from the EULA that the developer’s first and foremost purpose with the EULA is to protect its own (financial) interests.¹¹⁰

In order to get this protection, the developers cast the contract into the form of a licence agreement. When the player buys the game from a store, she gets (according to the developer) a licensed right to play the game and to make use of the developer’s intellectual property for that purpose. If she agrees to and adheres to a

¹⁰⁷ I have decided to use the *WoW* EULA that was in operation at the time when I started with the writing of these chapters. It is not important for the academic discussions of these EULAs that the most recent version should be included, since the changes are usually very superficial and the discussions about the clauses are of a general nature.

¹⁰⁸ See the discussion about the history of virtual worlds as 2.2 above.

¹⁰⁹ See also Reuveni E “On Virtual Worlds: Copyright and Contract Law at the Dawn of the Virtual Age” (2007) 82 *Indiana LR* 261-308 at 303.

¹¹⁰ This is of course a natural situation and it stands to be expected that the situation will continue for as long as there is no sufficient legal disincentive to exploit the situation to the detriment of the players.

certain number of pre-set conditions, she will be allowed to play the game. One of these conditions usually determines that the player has to pay a monthly access fee to gain entry into the virtual world. If the player does not pay this fee, she is left with a very expensive set of CDs or DVDs, with little economic value.

Another very important reason why developers want to retain as much control as possible over their players is that they initially¹¹¹ envisaged that subscription revenue and some in-game sales of virtual property items would account for their profits. However, the effect of the internal economy (of a virtual world) on the external economic market has been quite substantial and most of these external market transactions are bypassing the revenue streams of the developers due to unauthorised trade outside of the virtual worlds. Consequently, the developers try to enforce policies enabling them to profit from these transactions.¹¹²

For comparative purposes, I will follow the structure of the *World of Warcraft* EULA and intermittently refer to the *Second Life* TOS. *Second Life* was created to provide in the needs of potential participants for socialisation and social networking. Although a player can use *Second Life* for entertainment purposes, there is a lot more happening in the virtual world than “just playing a game”.¹¹³ Players often take

¹¹¹ This would have been when the commercial possibilities of virtual worlds were only being discovered.

¹¹² See the discussion below at 4.6 about the problems faced by developers when administering virtual worlds.

¹¹³ See also Reuveni E “On Virtual Worlds: Copyright and Contract Law at the Dawn of the Virtual Age” (2007) 82 *Indiana LR* 261-308 at 303.

Second Life seriously and it is used for such diverse purposes as research, teaching,¹¹⁴ simulations¹¹⁵ and even helping with the treatment of medical conditions.¹¹⁶ Another serious part of the *Second Life* experience is commerce. Because of this, it is important that Linden Lab try to control the in-world economic effects.

In the next couple of sections, I will discuss the most relevant portions of the *WoW* EULA as it affects virtual property. As and where relevant, I will discuss the TOS of *Second Life* where the contents contained in the documents deal with the same subject matter and give a different perspective on the issues at hand.

3 6 2 2 Opening statements

In the opening paragraph of the EULA,¹¹⁷ the developer makes it clear that a player only gets a licence to use the software. A player does not acquire any ownership

¹¹⁴ Townsend GE “Fizzy’s Second Life” 2007 at <http://fizzysecondlife.blogspot.com> (12 March 2008).

¹¹⁵ See the discussion about the history and developments of virtual worlds in chapter 2 above at 2.2 and 2.3.

¹¹⁶ As an example, one of the private islands in *Second Life* is called “Brigadoon.” This is a safe, virtual environment where people with Asperger’s syndrome and their care-givers can interact. See Silverstein J “A World Where Anything is Possible” 2005 *abc NEWS* at <http://abcnews.go.com/Technology/FutureTech/story?id=1019818> (01 Dec 2009).

¹¹⁷ “Important! Please read carefully. This software is licensed, not sold. By installing, copying or otherwise using the game (defined below), you agree to be bound by the terms of this agreement. If you do not agree to the terms of this agreement, you are not permitted to install, copy or use the game. If you reject the terms of this agreement within thirty (30) days after your purchase, you may

rights. If the player does not accept the terms of the EULA within 30 days after purchase, he may request a full refund of the purchase price. There is no mention of the consequences of a player deciding not to accept a subsequent change to the EULA.

The following section deals with copyright issues and states that the developer (Blizzard) retains all copyright in the game in all its related forms.¹¹⁸ Blizzard even states that it retains copyright in any files or software that it gives to the players to enable them (the players) to modify the game. This could have consequences for the possibility that a player might want to assert copyright in his or her own efforts to change the game, for example by creating a unique avatar.¹¹⁹

call (800)757-7707 to request a full refund of the purchase price.” Opening Statement: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009). This version has been in operation since July 29, 2008.

¹¹⁸ “This software program, and any files that are delivered to you by Blizzard Entertainment, Inc. (via on-line transmission or otherwise) to “patch,” update, or otherwise modify the software program, as well as any printed materials and any on-line or electronic documentation (the “Manual”), and any and all copies and derivative works of such software program and Manual (collectively, with the “Game Client” defined below, the “Game”) is the copyrighted work of Blizzard Entertainment, Inc. or its licensors (collectively referred to herein as “Blizzard”). Any and all uses of the Game are governed by the terms of this End User License Agreement (the “License Agreement” or “Agreement”).” Opening Statement: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009). This version has been in operation since July 29, 2008.

¹¹⁹ See Vacca R “Viewing Virtual Property Ownership through the Lens of Innovation” (2008) 76 *Tenn L Rev* 33-64 at 44. See also in general Eriksson A & Grill K “Who Owns My Avatar? – Rights in Virtual Property” 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org/dl/db/06276.23429.pdf> (02 Dec 2009).

The developer enforces its right to the sole provision and management of the game.¹²⁰ As discussed earlier¹²¹ the developer prohibits players from making use of the *WoW* software to run on servers that are not managed by the developer. The TOS is incorporated into the EULA by reference and the paragraph is concluded by a “catch-all” clause prohibiting any actions except those explicitly allowed by the EULA.

The opening statement of the *Second Life* Terms of Service mirrors the one of *WoW* to a large degree,¹²² but unlike in *WoW*, there is no reference to the possibility to get one’s money back if one should decide not to accept the agreement.

¹²⁰ “The Game may only be played by obtaining from Blizzard access to the World of Warcraft massively multi-player on-line role-playing game service (the “Service”), which is subject to a separate Terms of Use agreement (the “Terms of Use”) incorporated into this Agreement by this reference. The Game is distributed solely for use by authorized end users according to the terms of this License Agreement. Any use, reproduction, modification or distribution of the Game not expressly authorized by the terms of the License Agreement is expressly prohibited.” Opening Statement: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009). This version has been in operation since July 29, 2008.

¹²¹ See the discussion about unlicensed servers at 3.4 above.

¹²² “Welcome to Second Life! This agreement (this “Agreement” or the “Terms of Service”) describes the terms on which Linden Research, Inc. and Linden Research United Kingdom, Ltd. (collectively “Linden Lab”) offer you access to Second Life. “Second Life” or the “Service” means the multi-user online service offered by Linden Lab, including its Websites, Servers, Linden Software, Linden In-World Content, and User Content (as those terms are defined in this Agreement). This offer is conditioned on your agreement to all of the terms and conditions contained in the Terms of Service, including the policies and terms linked to or otherwise referenced in this Agreement. By using Second Life, you agree to and accept these Terms of Service. If you do not so agree, you should decline this Agreement, in which case you are prohibited from accessing or using Second Life.” Introductory

3 6 2 3 License terms and real world regulation issues

Here is a prime example of the developer's intention to create only a contractual relationship between itself and the player.¹²³ The developer defines the right of the player to use the game-client as a "limited, non-exclusive licence."¹²⁴

statement: Linden Lab "Terms of Service - Second Life" 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011). This version has been in operation since December 15, 2010.

¹²³ "If you agree to this License Agreement, you may install the computer software (hereafter referred to as the "Game Client") onto your computer for purposes of playing the Game by registering for and accessing an account with the Service (the "Account"). Subject to your agreement to and continuing compliance with this License Agreement, Blizzard hereby grants, and you hereby accept, a limited, non-exclusive license to (a) install the Game Client on one or more computers owned by you or under your legitimate control, and (b) use the Game Client in conjunction with the Service for your non-commercial entertainment purposes only. All use of the Game Client is subject to this License Agreement and to the Terms of Use agreement, both of which you must accept before you can use your Account to play the Game." See 1. Grant of a Limited Licence: Blizzard "World of Warcraft - End User License Agreement" 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹²⁴ *Second Life* takes this one step further and states that "Linden Lab hereby grants you a non-exclusive, non-transferable, non-sublicensable, limited, revocable license to access and use the Service as set forth in these Terms of Service and expressly conditioned upon you and each of your Accounts remaining active, in good standing, and in full compliance with these Terms of Service." 7.7 Linden Lab grants you certain licenses to access and use Second Life while you are in full compliance with the Terms of Service: Linden Lab "Terms of Service - Second Life" 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011).

The developer limits the possible property rights of the player by explicitly prohibiting the use of the virtual property contained in the game for any security purposes or any transfer of the game property to any third parties.¹²⁵

3.6.2.5 Ownership and transfer issues

Paragraph 4 deals with issues of ownership.¹²⁶ While paragraph 4.A. deals with all the different iterations of things in which the developer is holding intellectual property

¹²⁵ “[You may not] sell, grant a security interest in or transfer reproductions of the Game to other parties in any way not expressly authorized herein, or rent, lease or license the Game to others.” See 2.H. Additional Licence Limitations: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹²⁶ “A. All title, ownership rights and intellectual property rights in and to the Game and all copies thereof (including without limitation any titles, computer code, themes, objects, characters, character names, stories, dialog, catch phrases, locations, concepts, artwork, character inventories, structural or landscape designs, animations, sounds, musical compositions and recordings, audio-visual effects, storylines, character likenesses, methods of operation, moral rights, and any related documentation) are owned or licensed by Blizzard. The Game is protected by the copyright laws of the United States, international treaties and conventions, and other laws. The Game may contain materials licensed by third parties, and the licensors of those materials may enforce their rights in the event of any violation of this License Agreement. B. You may permanently transfer all of your rights and obligations under the License Agreement to another only by physically transferring the original media (e.g., the CD-ROM or DVD you purchased), all original packaging, and all Manuals or other documentation distributed with the Game; provided, however, that you permanently delete all copies and installations of the Game in your possession or control, and that the recipient agrees to the terms of this License Agreement. The transferor (i.e., you), and not Blizzard, agrees to be solely responsible for any taxes, fees, charges, duties, withholdings, assessments, and the like, together with any interest, penalties, and additions imposed in connection with such transfer.” See 4.A-B. Ownership: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html>

rights, paragraph 4.B. is of specific relevance to the legal system and governance of a virtual world. It deals with the transfer of rights and obligations under the licence agreement. Even though one might feel that the purchase of the client software is only incidental to the playing of the game, the developer approaches this issue differently. Firstly, it gives the player an explicit right to transfer all the rights and obligations that he or she derives from the licence agreement, to another person. This is in contrast to the very strict control that the developer exerts over its intellectual property. In effect, the developer is acknowledging that a player may derive a protectable interest in the game, which the player could use for economic benefit. Even though paragraph 2.C. prohibits the practice of selling anything derived from the game for a commercial purpose, here the developer is giving a player explicit permission to transfer his or her in-game interests. This means that even though a player has played the game with the intention of deriving commercial benefit from the eventual selling of the game, the EULA allows the transfer of in-game interests if the physical game media together with the account is transferred to

[.com/legal/eula.html](http://secondlife.com/legal/eula.html) (04 Nov 2009). *Second Life* follows a similar formula and regulates the transfer of an account as follows: “13.2 You may not assign your Account; we may assign this Agreement. You may not assign this Agreement or your Account without the prior written consent of Linden Lab. You may not transfer or sublicense any licenses granted by Linden Lab in this Agreement without the prior written consent of Linden Lab, except solely to the extent this Agreement permits transfer of the Linden Dollar Licenses and Virtual Land Licenses. Linden Lab may assign this Agreement, in whole or in part, and all related rights, licenses, benefits and obligations, without restriction, including the right to sublicense any rights and licenses under this Agreement.” See 13. General Provisions: Linden Lab “Terms of Service - Second Life” 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011).

the buyer. This requirement that the player must transfer the physical media might create some complications in the real world. This is problematic because the player will often not possess any physical media because he or she downloaded the game-client directly from the internet and never made or possessed a physical copy. Further reference is made to the fact that the player who is transferring her rights and obligations should delete any copies and installations of the game in her possession or control. This only applies to the game-client and does not affect the player's virtual patrimony or account. The only embargo that the developers are placing on the transfer is a virtual-world *nemo plus iuris*¹²⁷ rule, which forces the new player receiving the transferred rights also to accept the obligations that are connected to it.¹²⁸

Even though this paragraph seems to cover all the bases for the developer in regulating the way in which virtual world patrimony is transferred, one problem area cannot be controlled by the developer. The developer cannot force non-contracting third parties to abide by the rules contained in the EULA and TOS. This is an uncontroversial situation in normal contractual relations. As a rule, a contract creates

¹²⁷ The *nemo plus iuris* rule (*nemo plus iuris transferre potest quam ipse habet*) refers to the principle that a person cannot transfer more rights to another person than he or she already has. See Thomas PhJ, Van der Merwe CG & Stoop BC *Historical Foundations of South African Private Law* (1998) 158; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 73.

¹²⁸ In other words, the person acquiring the rights in terms of the original contract is also restricted by the contractual obligations into which the initial contractant entered into with the developer. See Van der Merwe S et al *Contract - General Principles* (2000) 349.

a personal relationship between the two contracting parties and this relationship does not affect third parties.¹²⁹ Therefore, one would expect that developers would not need to regulate this in a EULA or TOS. However, the rigid controls that developers impose on the virtual property interests illustrate the fact that even developers see virtual property interests as property and not purely personal relations between developer and player. In other words, while they are negating any property rights in terms of the EULA, they are in fact acknowledging the existence of such rights by trying to regulate them in the EULA. For example, in the case of *Webzen v Itembay*,¹³⁰ a developer tried to force a company that catered for the real world sale and exchange of virtual items to stop providing the services because they were allegedly infringing on the developer's rights. The court found that because the external company was not a party to the EULA and only provided a service operating outside the virtual world, the company was not bound by law to the contract and could continue to provide the service. As a consequence, the company's provision of a service outside of the virtual world was not illegal. From this example one could infer that the developer was indirectly asking the court for property-like protection of its virtual interests and therefore for the contract to have third party effect. However,

¹²⁹ This is also referred to as privity of contract. See Lubbe GF & Murray CM *Farlam and Hathaway Contract* (3rd ed 2000) 15, 407.

¹³⁰ The case is from the District Court of Western Seoul, 26 December 2002 and relates to developer *Webzen v ItemBay and others*. It is discussed by Yuun, but the discussion contains no more specific reference to a case name than what has been provided here: see Yuun U "Real Money Trading in MMORPG Items from a Legal and Policy Perspective" 2004 *SSRN* at <http://ssrn.com/abstract=1113327> (05 Nov 2009) 22-23.

the outcome of this case highlights the fact that even though developers often see their powers as absolute, they are sometimes stumped by the realities of the real world.

As an illustration of how the concept of virtual land is dealt with, *Second Life's* TOS deals with virtual land. While the developer is describing a form of virtual property in the sense of virtual real estate in both form and function, it re-labels it as being something else in order to prevent legal consequences and liabilities.¹³¹

The developer is describing virtual real estate, but states that even though a player could acquire such property, he or she is in fact not acquiring the property, but rather just acquiring a "limited license to access and use" the property. From the text of the TOS one can see that both in form and function, the provided real estate mirrors the situation in the real world.¹³² One can use it, acquire it, and transfer it.

¹³¹ "Virtual Land is the graphical representation of three-dimensional virtual world space. When you acquire Virtual Land, you obtain a limited license to access and use certain features of the Service associated with Virtual Land stored on our Servers. Virtual Land is available for Purchase or distribution at Linden Lab's discretion, and is not redeemable for monetary value from Linden Lab." See 6. "Virtual Land" is In-World Space That We License: Linden Lab "Terms of Service - Second Life" 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011).

¹³² "The Service includes a component of In-World virtual space that is stored on our Servers and made available in the form of virtual units ("Virtual Land"). This "Virtual Land" constitutes a limited license to access and use certain features of our Service as set forth below. Linden Lab may or may not charge fees for the right to acquire, transfer or access Virtual Land, and these fees may change at any time. When you acquire Virtual Land, Linden Lab hereby grants you a limited license ("Virtual Land License") to access and use features of the Service associated with the virtual unit(s) of space corresponding to the identifiers of the Virtual Land within the Service as designated by Linden Lab... The Virtual Land License is transferable by the holder to any other user provided that both users and

One should also keep in mind that the possibility of acquiring, selling, renting, improving and developing virtual property is one of the most prominent features in *Second Life*.¹³³

Finally, following the preceding sections of the TOS, the developers state that players do *not* get any real property rights or actual real estate in *Second Life*.¹³⁴

Once again, even though it would seem as if the form and function of the virtual land

the proposed transfer comply with these Terms of Service, maintain their accounts in good standing, and are not delinquent on any Account payment requirements. Except as expressly permitted by this Agreement, this Virtual Land License may not otherwise be encumbered, conveyed or made subject to any right of survivorship or other disposition and any attempted disposition in violation of these Terms of Service is null and void. Linden Lab may revoke the Virtual Land License at any time without notice, refund or compensation in the event that: (i) Linden Lab determines that fraud, illegal conduct or any other violations of these Terms of Service or other Second Life policies is associated with the holder's Account or Virtual Land; or (ii) the holder becomes delinquent on any of that user's Account's payment requirements, ceases to maintain an active Account or terminates this Agreement. ..." See 6. "Virtual Land" is In-World Space That We License: Linden Lab "Terms of Service - Second Life" 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011).

¹³³ See the discussion in chapter 2.

¹³⁴ "You acknowledge that Virtual Land is a limited license right and is not a real property right or actual real estate, and it is not redeemable for any sum of money from Linden Lab. You acknowledge that the use of the words "Buy," "Sell" and similar terms carry the same meaning of referring to the transfer of the Virtual Land License as they do with respect to the Linden Dollar License. You agree that Linden Lab has the right to manage, regulate, control, modify and/or eliminate such Virtual Land as it sees fit and that Linden Lab shall have no liability to you based on its exercise of such right." 5. "Linden Dollars" are Virtual Token That We License & 6. "Virtual Land" is In-World Space That We License: Linden Lab "Terms of Service - Second Life" 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011).

in *Second Life* follow that of real world property, the developer explicitly denies and prevents the vesting of such rights in the players.¹³⁵

3 6 3 Conclusion

The terms included in EULAs and TOS are not unique to *WoW* and *Second Life* and are a representation of other EULAs that relate to software use and MMORPGs on the market. This EULA in combination with the TOS is also responsible for regulating and determining the rights and obligations that the parties have towards each other. It is clear that the developers use the EULA/TOS combination to prevent the recognition of virtual property rights of the player. From the discussion above it has also become clear that an important aspect to keep in mind when thinking about virtual worlds and the legal repercussions of the phenomena is that virtual worlds that are run as a commercial enterprise are just that – commercial enterprises. Because of this fact, the relationship between player and developer is regulated by contract and one needs to view the rights and relationships between the various

¹³⁵ It is interesting to note how developers are becoming more and more aggressive in their efforts to deny the existence of such rights and the increasingly complicated legal steps that they take to prevent this. This leads to one of the important questions as to the justifications for the acceptance of virtual property and the associated rights. The question could be asked whether, even though the EULA and TOS contractually denied the creation, existence and vesting of property rights, normative justifications should not override the contractual terms and give real world recognition to such rights. This question is more fully discussed in the following chapters.

parties and participants in the virtual worlds in the same frame of mind.¹³⁶ It is precisely because of this fact that there is (generally speaking) nothing wrong with refusing to grant property rights to someone if the other party accepts the contractual terms. However, even when developers follow this route to restrict the rights that players can get in a virtual world, it does not mean that the players have no legal protection of their interests. Players do have personal property interests¹³⁷ in a virtual world. The question is whether the law backs those rights up to strengthen their contractual protection (liability rules).¹³⁸ This has implications for the possible recognition of virtual property, since the question whether virtual property relations are based on contractual (personal) rights or on property rights is directly influenced by the restrictions placed on them by the End User License Agreement (EULA) in the real world. However, even if one was to decide not to recognise a player's property rights in virtual worlds, it is still possible that personal property interests could

¹³⁶ See generally Balkin JM "Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds" (2004) 90 *VA L Rev* 2043-2098 at 2047, where Balkin argues that it is especially due to this commodification of the virtual world that developers should be subjected to consumer protection laws and other legislative and administrative regulations. See also Balkin JM "Law and Liberty in Virtual Worlds" (2004) 49 *NYL Sch L Rev* 63-80 at 64-67 for a general overview of the three freedoms that are needed in a virtual world.

¹³⁷ Similar to such personal property interests as short-term leases and time-sharing rights based on shareblocks: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 48; 83; 430-435; 494; Pienaar GJ *Sectional Titles* (2010) 287; 411-416.

¹³⁸ For example, the *huur gaat voor koop* rule for short-term lease and legislation for shareblocks schemes. Pienaar GJ *Sectional Titles* (2010) 287; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 83-85; 431-435; 494.

provide protection to much the same effect for players if these contractual rights are backed up by the law and therefore providing property-like protection.

3 7 Conclusion

In this chapter, I discussed the creation and regulation of legal relationships regarding virtual worlds. I started investigating virtual law by investigating its sources, of which the first was the binary computer code that forms the basis of the whole virtual world.¹³⁹ As the first source of virtual law, the computer code refers to the programming used to create the game and would at its most basic level consist out of binary code (ones and zeros). The laws created by means of computer code do not need to be enforced, since the enforcement is automatically done by the game itself. There is no room for circumventing the rules as the outcome of any given set of rules and actions is always pre-determined by the code. This creates certainty in the legal system of the game and may provide very strong protection for (or complete absence of) property interests.

The second source discussed was the in-game customary or common law that develops outside of the developer's sphere of influence, between the players

¹³⁹ For an illuminating discussion on computer code and its effects on the laws of virtual worlds see Lessig L *Code and other Laws of Cyberspace* (1999) as well as the sequel: Lessig L *Code Version 2.0* (2006). See also Pollitzer B "Serious Business: When Virtual Items Gain Real World Value" 2007 *SSRN* at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 20, where Pollitzer succinctly (in about one and a half pages) gives an overview of how code works.

themselves and I explained how such law is created. This creation process is sometimes spontaneous, but at other times carefully planned. The law is also policed and enforced by the players themselves, without the intervention or help of the developers. The enforcement of these laws was found to be surprisingly effective and innovative, although there are some problematic issues surrounding the problem of self-help and vigilantism.

The discussion of these two sources was followed by a discussion about the need for an in-game legal system and how this affects both developers and players with regard to power, control and executive law-making inside a virtual world. This was illustrated by an example of how the concept of virtual property has been dealt with in real world courts to date. From this analysis, it is clear that courts are willing to recognise and protect virtual property interests by making use of (at the very least) the public law measures provided for theft protection in criminal law. However, this is not a very sophisticated method of protection of property interests and could indicate a need for development of better protection via property rules.

The final and most important source of virtual law that was discussed was the contractual terms contained in the so-called “End User Licence Agreements” (EULAs) and “Terms of Service” (TOSs). It was shown that as a source of virtual world law the EULA is the instrument that determines how rights and obligations concerning the virtual world are created and controlled by developers. As the most important source of virtual property, the EULA gives rise to (and is subject to) real world law and is the point of reference for discussing the legal relationship between player and developer. To illustrate how this relationship works, I analysed certain key

points of the EULA of *World of Warcraft* and illustrated various comparative issues with the TOS of *Second Life*. From the analysis of the EULA and TOS it became clear they actively limit players' rights and the only right a player normally will acquire from a developer is a limited license to use the game. Developers prefer this situation because it protects their own interest to the detriment of the players' interests. However, the fact that property rights are restricted by means of contract does not automatically mean that a player does not have any property-like protection. Personal property interests could be protected if the law recognised the importance of these interests and provided property-like protection by for example legislative means. Without such recognition, these personal property interests will continue to be weak personal rights that stall the development of a sophisticated property system.

The discussion of the issue of virtual world law in this chapter has built on the background information given in the previous chapter about virtual worlds; collectively, the two chapters form a basis for the understanding of where the concept of virtual property comes from. Now that these underlying concepts have been discussed, the concept of virtual property that follows in the following chapters can be explored further. The next chapter deals with the question of if and why virtual property should be recognised in the real world. This is done by looking at some normative justifications for virtual property as well as some of the important idiosyncratic features that need to be taken into account when dealing with virtual worlds.

Chapter 4: Should Virtual Property be Recognized and Protected as Property?

4 1 Introduction

“Virtual property’ is a solution looking for a problem.”¹

The problem with virtual property is that the relevance of the concept for real world property is constantly being questioned. The question that arises when one is discussing virtual property is: “why should anyone care about this”? Sometimes this is also followed by, or replaced with, the statement that virtual property only concerns games and as such should not be taken seriously. From what has been discussed in the preceding chapters it should be clear that there is a proliferation of virtual worlds and a substantial number of followers and participants who spend their time, energy and money inside them. Academics are questioning whether it is worthwhile to spend academic time, energy and attention on the research of virtual worlds. Some view virtual worlds merely as games or diversions and do not consider it worthwhile to give these worlds serious attention. The general argument is that these social environments are not real and therefore it is not necessary to give them

¹ Nelson JW “The Virtual Property Problem” 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 1.

any academic attention. However, Hunter and Lastowka² found that there is a lot of scepticism surrounding the study of virtual worlds. They therefore strongly disagree with this viewpoint and conclude that virtual worlds, as well as the social interactions occurring in them, constitute a very important new societal development that deserves serious academic attention.³

The issues surrounding the legitimisation of the virtual property concept seem to stem from the differing subjective understandings of the virtual property concept, which is reflected by the differing approaches to real world property discussed in chapters 5 and 6. In order to address these issues, I discuss the question of whether virtual property should be recognised and protected as property. To do this, I will begin the chapter by discussing the economic implications that the existence of virtual worlds has for the real world. The economy of virtual worlds is a very important feature of most virtual worlds due to a number of factors that are discussed below. For example, most virtual worlds are commercial enterprises and therefore they have to cater for and encourage a strong in-game economy that usually has a strong influence on the real world economy. This leads into a discussion of some of the social issues that are connected with virtual worlds. The addictive nature of

² Lastowka FG and Hunter D “The Laws of Virtual Worlds” (2004) 92 *CLR* 1-74 at 7.

³ See also Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184; Moringiello JM “What Virtual Worlds can do for Property Law” (2009) 09-08 *Widener Law School Legal Studies Research Paper Series* at <http://ssrn.com/abstract=1366450> 1-51.

online gaming and participation in virtual worlds is specifically discussed. Following on from this, I focus on three normative justifications that are used to assert property claims in the real world and apply these to the virtual world situation. These are the justifications in terms of Lockean labour theory, utilitarian and personality property theories. The discussion of these three normative accounts could provide one with a foundation for accepting the justification that virtual property should be recognised as property. I then discuss some of the problems that might be encountered if one accepts that virtual property should be recognised and protected as property in the real world. I conclude this chapter by looking at the so-called “pitfalls of virtual property”, where a number of arguments for and against the recognition of virtual world property are considered, together with the associated problems one might encounter when dealing with virtual worlds.

4 2 The economy of virtual worlds

4 2 1 Introduction

Castronova describes the economy of *Everquest's* Norath in the same way as if it were a real world economy.⁴ He provides statistics relating to such activities as production, labour supply, income, inflation, foreign- and currency exchange. He notes that by the late summer of 2001, *Everquest* had a subscriber base of more

⁴ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40.

than 400 000 players and showed a growth of more than ten percent in two quarters.⁵ At that stage, Sony's monthly revenues from *Everquest* alone amounted to approximately US\$ 3.6 million.

The commercial success of a game such as *Everquest* is dependant not only on the willingness of players to participate, but also on their willingness to pay for this privilege on an on-going basis. In other words, to survive an online virtual world has to offer something persistently more attractive than the products of their competitors.

Castronova conducted a survey of the amount of time that players spent online in *Norath*. The results of this survey showed that the average user in *Norath* spends an average of 4 hours per day or an average of more than 20 hours per week online playing the game.⁶ He mentions that many people would describe this behaviour as a type of addiction, but then analyses it in terms of an economic argument. Instead of viewing it as addiction, it is rather assumed that the player's behaviour reflects rational choice. From this he concludes that a virtual world must offer something more than mere entertainment to which people become addicted. What is offered is an alternative reality or a different country in which a player may choose to spend

⁵ Which was up from about 320 000 subscribers in March 2001: Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40 at 9.

⁶ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40 at 10.

most of his or her life. In the competition between Earth and the alternate virtual world, Earth seems to be the less appealing option.

The creation of an avatar and the choosing of its attributes occur under budget constraints that ensure equality of opportunity. The benefit acquired by making a certain choice as to race or gender is balanced by a corresponding disadvantage that automatically sets in.⁷ Castronova explains that as a result of this choice made by the player, the avatar acquires certain skills. This means that each avatar develops a social role and will become either a supplier or a consumer of goods.

Social integration is also an important element in virtual worlds because the system is designed in such a way that there is an incentive for players to engage in mutually beneficial trade in order to succeed or progress in the game. In order to develop all these in-game social skills, effort and time is needed. Castronova describes the fruit of all these labours as “avatar capital” and defines it as “an enhancement of the avatar’s capabilities through training”.⁸ Capital is thus measured by the *Everquest* player’s “level”. As the avatar’s capital increases with each level, an increase is also marked in an avatar’s attractiveness as a social contact for other players.

⁷ Any inequality that a player perceives or experiences in the virtual world would result directly from his or her actions in choosing an avatar as well as subsequent actions in playing the game: Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40 at 12.

⁸ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40 at 14.

Castronova equates this levelling and integration system to that which is found in the real world. The basic human tendency to acquire self-esteem from the opinions of others is used as motivation for players to increase the abilities of their avatars. He suggests that it is this aspiration towards success and social standing that causes players to spend hundreds of hours in virtual worlds.⁹ In fact, some spend so much of their time in the virtual world that they might believe (and some do) that they live there.¹⁰

4 2 2 Scarcity

In theory, a virtual environment can be boundless. The space, virtual estates, goods and avatars are only restricted by the amount of available storage space for the data, as well as the game's programming constraints. If this was the case in every virtual world, there would almost be no point to participating in it. A player could create any amount of avatars and items without limit or obstacle. His avatars would also have equal abilities to all the other avatars. The actions of any one player would therefore have imposed no cost on any of the other player's activities. Even though some

⁹ For an alternative theory that leans toward the addictive aspect rather than free choice, see the section on addiction below.

¹⁰ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 *No 618 CESifo Working Paper* 1-40 at 14, 22-24. For a discussion of how players perceive themselves in virtual worlds see Yee N "The Norrathian Scrolls: A Study of EverQuest" 2001 at <http://www.nickyee.com/eqt/report.html> (16 Dec 2011) 1-76 at 66-69.

virtual worlds incorporate this unrestricted philosophy,¹¹ most of the commercially run ones make full use of scarcity in their design.¹²

Where scarcity is implemented, the user is confronted by its effect in a number of dimensions.¹³ Firstly, a player faces a constraint on the number of avatars he or she may create and, because of levelling, the development of his or her avatar. Secondly, the avatar is constrained by the physicality of the virtual world. In this sense, the player is forced to obtain and compete for a large number of the in-game goods, from and against other players. This always comes at a price and carries some risks for the player. This is because the player will either have to buy an item or fight for it. Thirdly, the society itself constrains the avatar because an avatar must compete against other avatars to fill a certain social role. For example, there may only be one position open for a healer in a raid against the dragon, but there might be two or more healers who wish to fill that position. Castronova says (and I heartily concur) that scarcity is what makes a virtual world fun.¹⁴ Scarcity leads to the trading of goods. If everyone had a copy of the ultimate magical sword, then it would have

¹¹ This is especially true for some of the worlds with free membership, for example in the virtual worlds of *Alpha World*, *Kaneva* and *Onworld*.

¹² Castronova calls the worlds that have no constraints "avatar spaces". He calls the ones that do have constraints "virtual worlds". Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40 at 15-16.

¹³ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40 at 16.

¹⁴ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 No 618 CESifo Working Paper 1-40 at 16.

no value. However, if there were only one of these items in existence, its value would be exceptionally high.

It would therefore seem as if the process of developing avatar capital invokes the same risk and reward structures in the brain as are invoked by personal development in one's real world life. By coming to this conclusion, Castronova finds that utility and well-being are not the same thing.¹⁵ While utility rises when constraints are relaxed, it follows from the previous description of in-game scarcity that it would seem as if players would rather choose to live in a (virtual) world with constraints, than in a (virtual) world without them.¹⁶ Castronova points out that constraints create the possibility to achieve something. It is this striving for the attainment of social status that motivates players to keep on diligently working at increasing their avatar's capital.

While this mirrors the real world society, the rules in the real world and those of virtual worlds tend to differ in important ways that make the virtual world more appealing for players. In essence, Castronova states, virtual worlds offer the player an escape from reality.¹⁷ The fact that one can combine this escape with the ability to be anyone or anything one wishes seems to supply the most important reasons why

¹⁵ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 *No 618 CESifo Working Paper* 1-40 at 16-17.

¹⁶ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 *No 618 CESifo Working Paper* 1-40 at 17.

¹⁷ When things go irreparably wrong, a player can just start over.

players would be willing to spend good money on visiting virtual worlds and escaping reality.¹⁸

The question remains whether these virtual societies have “real” economies. From an economist’s viewpoint, Castronova answers in the affirmative. He says that any distinct territory with a labour force, gross national product and floating exchange rate can be classified as having a real economy. This means that from an economic perspective, virtual worlds are inherently real.¹⁹

4 2 3 In-game trading

Virtual worlds have their own internal economies that tend to form an integral part of the game and gameplay. The economy and laws are often designed into the game as a deliberate measure, although sometimes it evolves without the consent of the developers or in unintended directions.²⁰

¹⁸ Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 *No 618 CESifo Working Paper* 1-40 at 17.

¹⁹ For an in-depth discussion and analysis of the data, methods, population, micro- and macroeconomic indicators in Norath, see Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 *No 618 CESifo Working* 1-40 at 18 and further. See in general Yee N "The Norrathian Scrolls: A Study of EverQuest" 2001 at <http://www.nickyee.com/eqt/report.html> (16 Dec 2011) 1-76.

²⁰ See chapter 3 where the phenomenon of user-made law inside virtual worlds is discussed in more detail.

The first type of economy dealing with virtual worlds and virtual items is the one that is regulated and facilitated in-game by the developers.

As discussed above,²¹ due to the interactive nature of the virtual worlds, players can exchange items. This entails that a crude trading facility is built into the basic design of the world. In many cases players are allowed (and encouraged) to take this one-step further to buy and sell virtual items. One character might have collected a number of extra swords or special armour, while another player might need a specific piece that is rare or unique. The item is then exchanged for virtual coins when a sale takes place.

Many worlds have shops that are managed by the program itself, which will offer to buy items from a player. One can also sell one's unneeded items for virtual gold or money to these shops. This is very impersonal and one cannot negotiate about the pricing. It often feels as if the game is giving one a raw deal, by buying low and selling back high.

Another method of exchanging items is via in-game auctions. Many worlds have special auction houses where players can put items up for sale and other players can bid on these items in real time, exactly as in a real world auction. The game then facilitates the sale and often takes a percentage of the proceeds in exactly the same manner as a real world auctioneer would.

²¹ As one of the elements that make up a virtual world. See the discussion about the interactive nature of virtual worlds above in chapter 2 at 2.4.5.

This illustrates the basic trading system found in most games and virtual worlds and can add greatly to gameplay.

4.2.4 Extra- or unsanctioned game trading

Thus far the examples only referred to methods of trading inside the game, which are facilitated or sanctioned by the game and its developers. Conceptually speaking there is no reason why people cannot trade virtual items in real life. This is done in the same way as one would trade in stocks and bonds. When a magic sword is sold on the open market in a forum such as eBay, the item is listed for sale on the internet and the seller is consequently approached by a prospective buyer. Because the item is virtual and only exists in the virtual world, it cannot be traded or handed over in the real world. The sale of the sword would therefore entail that a player in real life gives an undertaking to the other player to transfer the item inside the confines of the game. This requires that the seller's avatar physically hands over the sword inside the game to the buyer's avatar, while the payment of real money takes place in the real world.²² While it is conceptually possible that unsanctioned in-game trading can occur without developer intervention, this will usually be prevented by means of program code. In other words, if the developer does not explicitly restrict some form

²² This real world transfer of money is often referred to as "real money trade" or RMT. See in general Yoon U "South Korea and Indirect Reliance on IP Law: Real Money Trading in MMORPG Items" (2008) 3 *JIPLP* 174-179; Yoon U "Real Money Trading in MMORPG Items from a Legal and Policy Perspective" 2004 *SSRN* at <http://ssrn.com/abstract=1113327> (05 Nov 2009) 1-59 at 2, 20-21.

of trade inside the virtual world either by means of code or by means of the EULA, one can usually assume that the developer is tacitly sanctioning the form of trade.

While unsanctioned trading in virtual property accounts for most of the economic impact between the real world and virtual worlds, developers are actively opposing this by means of code, EULAs and sanctions such as closing the accounts of players who trade outside the system. For example, eBay is actively assisting developers by not allowing the listing of certain types of virtual property on its website.²³

4 2 5 Taxation issues

Because of the huge and still rapidly growing economies created by virtual worlds, it was inevitable that governments would at some stage investigate the possibility of taxation.²⁴ Even though the wheels of parliament and governments grind slowly, tax officials are already taking notice of the immense economic activity that takes place in the virtual worlds and online games, as well as the fact that these virtual items

²³ See the discussion about this restriction in chapter 4 below at 4.6.6 as well as Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 21. See also: Sandoval G "Sony to Ban Sale of Online Characters from its Popular Gaming Sites" 2000 *CNET News* at http://news.cnet.com/2100-1017_3-239052.html (19 Dec 2011); Sandoval G "eBay, Yahoo Crack Down on Fantasy Sales" 2001 *CNET News* at <http://news.cnet.com/2100-1017-251654.html> (19 Dec 2011); Terdiman D "eBay Bans Auctions of Virtual Goods" 2007 *CNET News.com* at http://www.news.com/2102-1043_3-6154372.html (12 March 2008).

²⁴ See in general Lederman L "'Stranger than Fiction': Taxing Virtual Worlds" (2007) 82 *NYU LR* 1620-1672 esp 1670-1672.

changing hands at an incredible pace are in fact representative of high value items.²⁵ Terdiman²⁶ discusses the possibility that it is only a question of time before the United States government will properly tax one (if one is taxable in the US, of course) on the actual, as well as the potential income of one's virtual world dealings.

This would be facilitated by compelling the game developers to send tax forms for nonemployee income from companies and institutions to all the players in their virtual worlds who engage in transactions with valuable items. This could have a far-reaching effect and will not only target the players who actively buy and sell outside the in-game virtual world market, but also those who just amass in-game wealth and never convert their assets into real world cash. Items that are mentioned include things like *Ultima Online's* castles, *Everquest's* weapons and *Second Life's* currency in the form of Linden Dollars.

Due to the fact that some of these virtual world economies are growing at a rate of between ten and fifteen percent per month, the question is when, and not if, governments and tax authorities are going to start paying attention to this issue. This

²⁵ Pienaar researched the question whether transactions concluded in virtual worlds would qualify as gross income under the South African Income Tax Act 58 of 1962. She concluded that most income that is generated as a result of these transactions will qualify as gross income with the only possible disqualification stemming from the applicability of virtual revenue as being "of a capital nature". See Pienaar SJ *South African Income Tax Implications of Income Earned in Virtual Worlds* (2008) iii.

²⁶ Terdiman D "IRS Taxation of Game Assets Inevitable" 2006 *Gamespot* at http://www.gamespot.com/pc/rpg/there/news.html?sid=6162654&om_act=convert&om_clk=newsfeatures&tag=newsfeatures;title;1 (20 May 2009).

matter was already raised in 2006 by Dan Miller,²⁷ a senior economist with the US Congress Joint Economic Committee.²⁸

An interesting issue is the question of whether estate duties could accrue to the virtual estate of a player who leaves a sizeable collection of valuable virtual assets to his or her heirs. LaPiana is of the opinion that since the virtual assets constitute property, there is little question of it being taxable.²⁹ There seems to be a glimmer of hope for avid gamers because in general their estates would only accrue at the time of death. At such time, the total value of their estates (including their virtual world assets) would have to exceed the limit set by their state or country of residence. Most people who buy and sell the occasional magical sword from *Everquest* for a few thousand dollars would not be affected by this. On the other hand, it would

²⁷ See Miller D “Virtual Inheritance” 2008 *Economics of Virtual Worlds* at <http://economicsofvirtualworlds.blogspot.com/2008/09/virtual-inheritance.html> (20 Dec 2011).

²⁸ It is clear that there is pressure from the US Government to investigate the taxation of virtual world earnings; however, it would seem as if the US Congress Joint Economic Committee (JEC) is currently approaching this issue with caution and circumspection. For more information see the JEC press release about the matter: Joint Economic Committee “Virtual Economies Need Clarification, Not More Taxes” 1998 *house.gov* at <http://www.house.gov/jec/news/news2006/pr109-98.pdf> (19 Dec 2011).

²⁹ Terdiman D “IRS Taxation of Game Assets Inevitable” 2006 *Gamespot* at http://www.gamespot.com/pc/rpg/there/news.html?sid=6162654&om_act=convert&om_clk=newsfeatures&tag=newsfeatures;title;1 (20 May 2009); Beyer GW “The Virtual World May Lead to Real World Tax Liability” 2006 *Wills, Trusts & Estates Prof Blog* at http://lawprofessors.typepad.com/trusts_estates_prof/2006/12/the_virtual_wor.html (20 Dec 2011); Miller D “Virtual Inheritance” 2008 *Economics of Virtual Worlds* at <http://economicsofvirtualworlds.blogspot.com/2008/09/virtual-inheritance.html> (20 Dec 2011).

provide interesting legal and estate problems³⁰ for a few elite individuals who are virtual world millionaires, like the *Second Life* land mogul Anshe Chung.³¹

Another problem that Terdiman mentions arises from the issue of virtual estate administration. The problem manifests itself in the question of how an administrator should obtain access to the virtual assets for the purposes of transferring it to the beneficiaries. Since the way in which most of these assets are secured requires that one has access to the password protected user account, it would require some ingenious ideas from the administrators to get the required access.³²

³⁰ See Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1056; Moringiello JM “Towards a System of Estates in Virtual Property” (2007) 08-22 *Widener Law School Legal Studies Research Paper Series* at <http://ssrn.com/abstract=1070184> 1-8. For a more general discussion about the legal questions surrounding access to the online information of deceased players, see Cha AE “After Death, a Struggle for Their Digital Memories” 2005 *Washingtonpost.com* at <http://www.washingtonpost.com/wp-dyn/articles/A58836-2005Feb2.html> (19 Dec 2011) and Lifeinsurancefinder “Digital privacy after death - What will happen to your online profile when you're gone?” www.lifeinsurancefinder.com.au at <http://www.lifeinsurancefinder.com.au/infographics/what-happens-online-when-you-die/> (19 Dec 2011).

³¹ Chung had amassed more than one million US dollars' worth of virtual real estate and land holdings in *Second Life* by 2006. See Saenz A “Entrepreneur Anshe Chung Makes a Fortune Selling Virtual Land, Banking and Fashion” 2011 at *Singularity Hub* <http://singularityhub.com/2011/08/23/entrepreneur-anshe-chung-makes-millions-selling-virtual-land-banking-and-fashion/> (19 Dec 2011); Hof RD “My Virtual Life” 2006 *Businessweek.com* at http://www.businessweek.com/magazine/content/06_18/b3982001.htm (19 Dec 2011); Chung A “Anshe Chung Becomes First Virtual World Millionaire” 2006 *anshechung.com* at http://www.anshechung.com/include/press/press_release251106.html (19 Dec 2011).

³² Since many of the virtual world personas are (on purpose) not traceable to their real world counterparts and ownership of the avatar is usually only provable by possession of the username and password, it would not be as simple as acquiring a court order that orders the game developers to

Making sure that one's estate administrator has access to all one's virtual accounts would be almost impossible. Even if one manages to keep all one's login details and passwords accessible in a special place for one's administrator, the frequency with which passwords are changed will often leave the administrator in the same befuddled position.

Camp points out that the extent of the tax that would be due to the state ultimately depends on the question of how much profit a player made in the acquisition of his virtual property.³³ It follows that if a player spent \$500 US in subscription fees to an online world where he then amassed a virtual estate of \$400 US, there would be no taxable income.

grant access to the account. Even if an avatar is traceable to a certain person as its initial creator, it would be very hard to prove that the avatar has not been sold or traded in the open market and now belongs to someone else. Things could get complicated if one of the deceased person's online friends gained access (or had been given access) to the avatar. This would mean that he or she knows the username and password. A conflict immediately arises when trying to determine the identity of the real owner. For my part I would recommend that the estate administrator resorts to the services of a good hacker in order to crack the password and get access to the account. For more information see in general: Plant N & Johnson-Cadwell E "Digital Legacy – Future Proofing a Virtual Life in the Digital World" 2010 *thomasegger.com* at <http://www.thomasegger.com/webfiles/pdfs/Digital%20Legacy%20-%20Jan%202010.pdf> (20 Dec 2011) 1-24; Cha AE "After Death, a Struggle for Their Digital Memories" 2005 *Washingtonpost.com* at <http://www.washingtonpost.com/wp-dyn/articles/A58836-2005Feb2.html> (19 Dec 2011).

³³ Camp B "The Play's the Thing: A Theory of Taxing Virtual Worlds" (2007) 59 *Hastings LJ* 1-72 at 2-3; 44-66.

4 2 5 Conclusion

It is clear from the discussion in this section that the economies inside and related to virtual worlds are of great importance. This is true not only inside the virtual worlds, where in-world economies are one of the main features that are considered important for both developers and players, but also with regard to the economic effects that virtual worlds have on the real world economies. With regard to the design features that are built into a virtual world, it became clear that the element of scarcity is one of the most important aspects that drive continuing participation of players in the virtual world. When it comes to property law, scarcity is the feature that makes the in-world objects valuable to the players, driving the need for them to acquire and trade in virtual objects. This results in players ending up with financial interests in their virtual property that they then start to trade via sanctioned and unsanctioned methods. The fact that these financial interests are regarded as taxable provides proof of the fact that financial interests situated in and related to virtual worlds are to be taken seriously and do in fact exist. Trading in these interests leads to the creation of personal rights between participants in the virtual worlds. The question then remains, why (apart from economic interests) should players receive recognition and protection of their virtual property interests via property rules? Is it necessary at all or would strengthened protection of already existing personal (contractual) rights be sufficient to protect these economic interests? These issues will receive more attention in the following sections.

4 3 Social interaction and addiction to virtual worlds

In chapter two above, the addictive nature of online games has already been identified as a social issue. One of the reasons for the addictive effect of (especially *Everquest*) MMORPGs is postulated by Nick Yee.³⁴ He contends that the addictive quality of the game is built-in on purpose and is a form of Operant Conditioning.³⁵ He equates *Everquest* to a virtual Skinner Box and uses the theories of Skinner and Maslow³⁶ to describe why we find the game so addictive.

³⁴ Yee N "The Virtual Skinner Box" at <http://www.nickyee.com/eqt/skinner.html> (16 May 2009). See also Yee's analysis of both quantitative and qualitative statistical data from *Everquest* where he includes interviews with players regarding their levels of addiction to the virtual world: Yee N "The Norrathian Scrolls: A Study of EverQuest" 2001 at <http://www.nickyee.com/eqt/report.html> (16 Dec 2011) 1-76.

³⁵ BF Skinner, an important figure in behaviourism, created the Operant Conditioning learning theory. This theory basically states that the frequency of any given behaviour is directly linked to whether it is rewarded or punished. See Skinner BF "A Brief Survey of Operant Behavior" at http://www.bfskinner.org/brief_survey.html (16 May 2009). For a full explanation see Skinner BF *The Behavior of Organisms: An Experimental Analysis* (1938).

³⁶ Abraham Maslow created the so-called pyramid of the hierarchy of human needs which states (in a nutshell) that there are 5 levels of needs that a person has to address in order to be the best he or she can be. In order to reach a higher level, the more basic lower level needs should be met in each case. These needs are (from bottom to top): (5) physiological needs (food, sleep, stimulation activity); (4) safety needs (security and protection from harm); (3) love and belonging needs (love friendship, comradeship); (2) esteem needs (self-respect, personal worth and autonomy) and, at the top level of the pyramid; (1) self-actualisation needs (needed in order to realise one's full potential). See "Maslow's Hierarchy of Human Needs" at http://www.abraham-maslow.com/m_motivation/Hierarchy_of_Needs.asp *AbrahamMaslow.com* (16 May 2009). Maslow first published this theory in Maslow AH "A Theory of Human Motivation" (1943) 50 *Psychological Review* 370-96.

The Skinner Box is an apparatus designed by BF Skinner and consists of a small transparent box, usually made out of plexi-glass or glass with an assortment of drinking tubes, levers and food pellets inside it. Laboratory rats are put into the boxes and by means of various methods a rat is conditioned to perform certain tasks (usually to obtain the food pellets). Initially a rat is rewarded with a pellet when it approaches a lever. After a while it will only be rewarded when it pushes a lever. Eventually it will only be necessary to reward the rat every now and again as long as it pushes the lever. As long as the rat eventually gets its reward at some random interval, it will continue (happily) clicking away at the lever until it gets its reward and will keep right on doing it.

A game like *Everquest* seems to be programmed in essentially the same way. This means that new participants in virtual world games such as *Everquest* receive instant gratification from the fulfilment of their higher level needs. They get this from the outset of the game. As discussed earlier,³⁷ *Everquest* provides enough fodder for the newcomer to the game to (easily) kill in order for the player to level up relatively quickly and with minimal effort. This translates into instant gratification for the player. However, the game is designed in such a way that as the player progresses and starts to attain each higher level, it becomes harder to attain the next “level up”. The player is also not precisely aware of when she would “level up” again. This is because the game never explicitly gives the player information about the criteria on

³⁷ See the discussion about *Everquest* in chapter 2.

which levelling is based. The player is only aware that at some random stage, after completing a random number of things, she would level up. This leads to the gratification being more difficult to attain. As a consequence, an addictive quality is built into the gameplay.³⁸ Similar to the rat who clicks away at its lever to obtain the pellet, the player clicks away at his (computer) mouse to obtain the higher level.

When one applies Maslow's theory to the game, one finds that a game like *Everquest* makes it possible for a player to attain a higher (perceived) achievement by reaching a goal in the virtual world without needing to satisfy their own basal needs such as hunger first.³⁹ The reward of slaying the dragon is perceived by the player as more of an achievement than cooking food (in the real world) and therefore some players may forget to eat and in extreme cases may die.⁴⁰

³⁸ This even features in the popular media. In an episode of *The Big Bang Theory* (season 2 episode 3: "The Barbarian Sublimation"), Penny gets addicted to *The Age of Conan* (a MMORPG) and starts to neglect herself, her job and those around her. Because of this she is properly educated by Leonard (in typical *The Big Bang Theory* fashion) about the dangers of online game addiction.

³⁹ Yee N "The Virtual Skinner Box" at <http://www.nickyee.com/eqt/skinner.html> (16 May 2009).

⁴⁰ A South Korean man died of heart failure after playing the online game *Starcraft* for more than 50 hours with little sleep and almost no breaks. See BBC News "S Korean Dies after Games Session" 2005 *BBC NEWS* at <http://news.bbc.co.uk/1/hi/technology/4137782.stm> (16 May 2009). For another example of how addiction to virtual worlds can take lives; a couple neglected their real world baby to such an extent that the infant died while they were playing a virtual world game. The sad irony of this case is that the objective of the virtual world was to take care of a virtual child. See Salmon A "Police: Couple Nurtured Virtual Child While Real Baby Starved" 2010 *CNN World* at <http://www.cnn.com/2010/WORLD/asiapcf/03/07/south.korea.baby.dead/index.html> (7 March 2010).

Online games are also treated as a sport in places like South Korea, where people have almost unlimited access to fast and efficient internet connections.⁴¹ Online games are televised and the top players are treated with the same level of celebrity status (and are paid at the same level) as regular sport celebrities. This also gives players the incentive to become addicted to the game in order to achieve the highest echelons of fame, glory and financial reward.

The use of and participation in virtual worlds constitutes an important new societal development that continues to evolve aggressively and deserves serious academic attention. To underline this, the discussion of the addictive nature of virtual worlds showed the dark side of the virtual world phenomenon, which helps to strengthen the argument in favour of real-world regulation of virtual worlds. The extent of the problems listed above indicates that aside from the economic and social importance of participation in virtual worlds, there is also a clear community interest in virtual worlds due to the far-reaching consequences of the addictive nature of the worlds.⁴² On the other hand, virtual worlds offer many people a safe and possibly utopian escape from the harsh reality of their current real world environment. There are real

⁴¹ Almost 30 percent of people in South Korea are registered for some form of online game and the country also plays host to the World Cyber Games. See BBC NEWS "S Korean Dies after Games Session" 2005 *BBC NEWS* at <http://news.bbc.co.uk/1/hi/technology/4137782.stm> (16 May 2009). Also see the World Cyber Games website at World Cyber Games "WCG Official Website" 2009 *wcg.com* at <http://www.wcg.com/6th/main.asp> (16 May 2009).

⁴² The importance of virtual worlds from a social perspective also necessitates that there is some need for regulation of the operation and content by both developers and the state. See the discussion above in chapter 3 at 3.4.

and equal opportunities for everyone in online worlds and the only prejudices experienced by players are due to choices made by the players themselves. This clear social impact and societal interest is already a justification for the recognition of virtual property and ties into the discussion of normative justifications that follows below.

4 4 Justification for the recognition of virtual property

4 4 1 Introduction

It is not inconceivable that property inside virtual worlds could in time replace man's reliance on property in real estate (amongst others) as a constitutive element of his or her human flourishing. This is important when considering the fast growing human population in comparison with the steady decline in available resources. America may have seemed boundless⁴³ in Locke's time and there are still opportunities for individuals to own their own exclusive pieces of real estate. However, for many this is just a dream that will never become a reality. This is where property in virtual worlds becomes very important. Even though a person might not have the financial or practical means to own real world property, everyone is equal in the virtual world.

⁴³ Locke J *Two Treatises of Government* (1690, Laslett P ed 1988) 228. See also Marx L "The American Ideology of Space" *MIT, Program in Science, Technology, and Society, Working Paper No 8* at http://web.mit.edu/sts/pubs/pdfs/MIT_STS_WorkingPaper_8_Marx.pdf (23 April 2012) 1-29 at 6-7.

Anyone can own land, build fantastic and boundless homes and relate to this virtual property in a proprietary fashion. Indeed, it has already been shown that many people deem their virtual property to be as valuable for enriching their lives as real world property would be.⁴⁴ Once again, this will only become more pronounced as the technology and levels of immersion in virtual worlds increase. People's jobs and associated salaries have replaced land as a form of providing financial, emotional and constitutive security and enabled them to participate in the democratic society. Very soon, a person's access to and the contents of his virtual world patrimony might enable him to do the same.⁴⁵ Take for example the process of democratic voting. Certain countries have already moved to using an electronic ballot casting system that uses advanced computer networks to create a virtual world that exists just for voting.⁴⁶ If one accepts that this voting network is a virtual world, every voter will have an "account" that is associated with his or her identity number.⁴⁷ This associated "account" can be renamed and represented as an avatar in a virtual voting station where voters can vote in a familiar three-dimensional environment. From this example one can see that a voter's electronic access to the voting network is fulfilling the function of enabling a voter to participate in the democratic process by means of a virtual world.

⁴⁴ See chapter 2 above.

⁴⁵ See the discussion about Virtual Property and Personhood at 4.4.4 below.

⁴⁶ See Wikipedia Contributors "Electronic Voting" 2010 *Wikipedia, The Free Encyclopedia* at http://en.wikipedia.org/wiki/Electronic_voting (22 Oct 2010).

⁴⁷ In the United States a voter's social security number would be used for identification.

In Hunter and Lastowka's discussion of the normative account of virtual property,⁴⁸ they attempt to find a justification for virtual property in terms of more established forms of property. They chose to make use of three of the popular normative accounts of property, which they identify as being the three main accounts. I accept these three accounts because they help illustrate the application of the accepted property theories to virtual property. These three accounts are the labour-desert theory of Locke,⁴⁹ the utilitarian theory of Bentham,⁵⁰ and the personality theories based on Hegel.⁵¹ The three common themes that Nelson identifies in arguments to justify the acceptance of virtual property, namely the Lockean labour theory, theft protection and deterrence; and market efficiency,⁵² overlap with the three theories to a certain extent, as does Fairfield's contention that the most prominent reason to protect and accept virtual property rights comes from the need to protect the users of virtual property from the theft of their virtual property objects by third parties, both inside and outside the virtual world.⁵³ After discussing

⁴⁸ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 43. I will mainly rely on Lastowka and Hunter's discussion of these theories throughout this section, unless otherwise indicated.

⁴⁹ Locke J *Two Treatises of Government* (1690, Laslett P ed 1988).

⁵⁰ Bentham J *An Introduction to the Principles of Morals and Legislation* (1789, Burns JH & Hart HLA eds 2005).

⁵¹ Hegel GWF *Hegel's Philosophy of Right* (1896, Knox TM trans 1967).

⁵² Nelson JW "The Virtual Property Problem" 2009 *SSRN* at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 1.

⁵³ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1081.

these theories, it will be shown that they “support a qualified conclusion that virtual entities claimed as property are property in reality.”⁵⁴

4 4 2 Locke

The name John Locke is well known in legal circles, more often than not in connection with his so-called labour theory or labour argument for property.⁵⁵ As a philosopher, his work is ubiquitous in the United States of America’s (USA) politics and it is said that listing the influence of his work in both primary and secondary sources explicitly referring to his work or implicitly invoking his ideas would rival the page count of the Encyclopaedia Britannica.⁵⁶ His *Second Treatise*⁵⁷ (in which he formulates his labour theory) is so authoritative in the USA that “it bears the distinction of being the only philosophy text cited on this subject as authoritative precedent by the contemporary Supreme Court.”⁵⁸

In spite of this impressive absorption of Locke’s theory of property, it has lately fallen in disrepute due to a number of modern academic critiques.⁵⁹ Mossoff⁶⁰ has

⁵⁴ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 43.

⁵⁵ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 155.

⁵⁶ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 155.

⁵⁷ Locke J *Two Treatises of Government* (1690, Laslett P ed 1988) “Second Treatise of Government”.

⁵⁸ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 155.

⁵⁹ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 155.

⁶⁰ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164.

taken a new look at these critiques and has set out to rebut the charges made against Locke's property theory by a number of prominent authors, ranging from Jeremy Waldron⁶¹ to Robert Nozick,⁶² who declare "... in short, that Locke's labor argument for property is a lousy justification for property rights."⁶³

The main passage of Locke's work where he describes his basic argument for property is the following:

"Though the Earth, and all inferior Creatures, be common to all Men, yet every Man has a *Property* in his own *Person*: this no Body has any Right to but himself. The *Labour* of his Body, and the *Work* of his Hands, we may say, are properly his. Whatsoever then he removes out of the State that Nature hath provided, and left it in, he hath mixed his *Labour* with, and joined to it something that is his own, and thereby makes it his *Property*. It being by him removed from the common state Nature placed it in, it hath by this *labour* something annexed to it, that excludes the common right of other Men. For this *Labour* being the unquestionable Property of the Labourer, no Man but he can have a right to what that is once joined to, at least where there is enough, and as good, left in common for others."⁶⁴

This is also the passage concerning his property theory that his detractors use most often as the basis of their criticism. The part of this passage that seems to attract the most criticism is the section where he states that "... he hath mixed his

⁶¹ Waldron J "Two Worries about Mixing One's Labour" (1983) 33 *Phil Q* 37-44.

⁶² Nozick R *Anarchy, State and Utopia* (1974) 174-175.

⁶³ Mossoff A "Locke's Labor Lost" (2002) 9 *U Chi L Sch Roundtable* 155-164 at 155.

⁶⁴ Locke J *Two Treatises of Government* (1690, Laslett P ed 1988) §27 287-288.

Labour with, and joynd to it something that is his own, and thereby makes it his *Property*.”⁶⁵

It seems that the thorn in the side of modern commentators is the reference that Locke makes to the mixing of labour as a mechanism of creating or obtaining property in something.⁶⁶ A summary of the critiques from the commentators as discussed by Mossoff⁶⁷ will suffice to illustrate this position.

Olivecrona⁶⁸ states that:

“It would be absurd to contend that the ‘labour’ of killing a deer or picking an acorn from the ground is, in the exact sense of the expression, ‘mixed’ with the deer or the acorn respectively. Locke cannot have meant it so. His meaning can only have been that the action of killing the deer or picking the acorn was the means by which something of the spiritual ego was infused into the object.”

Mavrodes⁶⁹ thinks that:

“To develop the notion of ownership along these lines requires that we decide how much work is to be ‘mixed’ in a product in order to confer original ownership. But the principle of causality cannot help us with this [i.e., the labourer causally creates the finished product]. Nor does any more suitable principle come to mind.”

Nozick⁷⁰ then uses the following example to criticise Locke’s argument:

⁶⁵ Locke J *Two Treatises of Government* (1690, Laslett P ed 1988) §27-288.

⁶⁶ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 156.

⁶⁷ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 156-158.

⁶⁸ Olivecrona K “Locke’s Theory of Appropriation” (1974) 24 *Phil Q* 220-234 at 226.

⁶⁹ Mavrodes G “Property” (1972) 53 *Personalist* 245-262 at 255.

“[Why] isn’t mixing what I own with what I don’t own a way of losing what I own rather than a way of gaining what I don’t? If I can own a can of tomato juice and spill it in the sea so that its molecules (made radioactive, so I can check this) mingle evenly throughout the sea, do I thereby come to own the sea, or have I foolishly dissipated my tomato juice?”

Finally, Waldron⁷¹ makes and then analyses the following proposition:

“(P) Individual A mixes his labour with object Q, seems to involve some sort of category mistake. Surely the only things that can be *mixed* with objects are other objects. But labour consists of *action*, not objects. How can a series of actions be mixed with a physical object?”

He then follows this with a similar example to the wasted tomato juice example provided by Nozick. Waldron asks the question of whether, he drops a sandwich into a block of wet cement that immediately hardens around it, “...can I now claim the concrete block in order to protect my entitlement to the sandwich?”⁷² He then answers his own question by stating that it would surely be regarded “... as some sort of joke.”⁷³

A summary of the above analyses⁷⁴ against Locke’s labour argument that property arises from the act of mixing of one’s pre-owned labour with things that are

⁷⁰ Nozick R *Anarchy, State and Utopia* (1974) 174-175.

⁷¹ Waldron J “Two Worries about Mixing One’s Labour” (1983) 33 *Phil Q* 37-44 at 40.

⁷² Waldron J “Two Worries about Mixing One’s Labour” (1983) 33 *Phil Q* 37-44 at 43.

⁷³ Waldron J “Two Worries about Mixing One’s Labour” (1983) 33 *Phil Q* 37-44 at 43.

⁷⁴ The examples cited by these political theorists disclose that they do not know their property law. A property lawyer would view the act of mixing one’s tomato juice with the sea, or throwing one’s sandwich into concrete as wilful wastage and an act akin to abandonment. The theorists wilfully

res nullius produces the complaint that the argument is "... 'absurd' (Olivecrona), 'meaningless' (Mavrodes), 'unworkable' (Nozick), 'incoherent' (Waldron) and a 'joke' (Waldron)."⁷⁵

This overwhelmingly negative reaction to Locke's labour theory seems to have been taken up by those who oppose the recognition of virtual property.⁷⁶ However, Mossoff provides a persuasive counter-argument to the criticisms raised against Locke by these prominent contemporary scholars. He finds that the problematic issues raised by these scholars stem from their schooling in the twentieth-century methodology of linguistic analysis⁷⁷ and that, as a consequence, this approach results in the use of literal analysis of individual words without referring "to the broader historical and intellectual context in which such words may be used."⁷⁸ He argues that this is precisely what these scholars are doing to Locke's argument by first adopting a literal definition of "labour" and then analysing the incoherence of mixing labour with objects in order to create property. He states that apart from this literal use of "labour", these scholars are making themselves guilty of violating the

ignore what Locke is saying about control. Also see the discussion about these theorists ignoring the principle of charity below.

⁷⁵ Mossoff A "Locke's Labor Lost" (2002) 9 *U Chi L Sch Roundtable* 155-164 at 158.

⁷⁶ See the discussion relating to virtual property below.

⁷⁷ Mossoff A "Locke's Labor Lost" (2002) 9 *U Chi L Sch Roundtable* 155-164 at 159.

⁷⁸ Mossoff A "Locke's Labor Lost" (2002) 9 *U Chi L Sch Roundtable* 155-164 at 159.

principle of charity that is one of the standards of philosophy.⁷⁹ When Locke uses the term “mixing labour” it should be seen as a term of art that he uses as his metaphor for “productive activities”.⁸⁰ If one should recognise that Locke thinks of labour as a value-creating activity that is both rational and purposeful,⁸¹ it becomes clear that Locke’s labour argument for property is situated within the confines of the philosophical context of his natural law philosophy and should not be viewed in isolation.⁸² Mossoff argues that this is important because it (firstly) illustrates why the mixture of labour is (according to Locke) a moral activity that leads to the creation of a moral right to property⁸³ and (secondly), because “labour” creates value when it refers to the productive activities performed by man to survive and succeed.⁸⁴ Mossoff concludes that when Locke’s labour argument is seen within its proper

⁷⁹ This principle implies that when other philosophers are interpreting the works of a fellow philosopher, the principle of charity “constrains the interpreter to maximise the truth or rationality in the subject’s sayings”: Blackburn S *The Oxford Dictionary of Philosophy* (2005) 59. As such, they should not mischaracterise the nature of their opponents’ arguments for the sake of nit-picking. Mossoff describes the use of the principle of charity in philosophy as “the ivory tower’s equivalent of ‘innocent until proven guilty’”: Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 159.

⁸⁰ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 160.

⁸¹ Buckle S *Natural Law and the Theory of Property: Grotius to Hume* (1991) 151.

⁸² Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 160.

⁸³ See in general Locke J *Two Treatises of Government* (1690, Laslett P ed 1988) §§ 6, 7, 26 and 32.

⁸⁴ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 161.

philosophical context it “is hardly absurd or confused”.⁸⁵ To refute the critique of the scholars mentioned above he states:

“When contemporary philosophers apply a linguistic methodology that ignores Locke’s broader natural law philosophy, that adopts a literal ahistorical meaning of ‘labor,’ and then reduces the ‘mixing labor’ metaphor to absurdity, they have not done Locke justice – nor the myriad legal doctrines defined and promulgated under this conception of property.”⁸⁶

Apparently foreseeing similar problems to those discussed above, Locke proactively dealt with them by addressing his future and contemporary detractors at the conclusion of his preface to the text with the following:⁸⁷

“If any one, concerned really for Truth, undertake the Confutation of my *Hypothesis*, I promise him either to recant my mistake, upon fair Conviction; or to answer his Difficulties. But he must remember two Things; *First*, that Cavilling here and there, at some Expression, or little incident of my Discourse, is not the answer to my Book. *Secondly*, that I shall not take railing for Arguments, nor think either of these worth my notice: Though I shall always look on my self as bound to give satisfaction to any who shall appear to be conscientiously scrupulous in the point, and shall shew any just Grounds for his Scruples.”⁸⁸

⁸⁵ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 164.

⁸⁶ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 164.

⁸⁷ Mossoff A “Locke’s Labor Lost” (2002) 9 *U Chi L Sch Roundtable* 155-164 at 164.

⁸⁸ Locke J *Two Treatises of Government* (1690, Laslett P ed 1988) 138-139.

From this, it is clear that one should look at the broader meaning of what Locke wants to say, rather than to focus on semantic nit-picking or analysing words in isolation.

Moving on from the general application of Locke's labour theory one can look at the application thereof to virtual property. It is perhaps fitting that Locke's theory of property is probably the most cited in connection with virtual property, precisely because of the vision he had of America as being boundless.⁸⁹ This vision can be compared to the perception of virtual worlds as also not having boundaries or limits⁹⁰ and it has been applied to other boundless areas in cyberspace such as domain names and the "limitless, largely non-rival, arena of intellectual property."⁹¹

Many players find Locke's "sweat of the brow" theory logical and the correct reason for asserting rights in their virtual property.⁹² The reason for this should become clear when looking at Locke's theory at a basic level as contained in the following section from his treatise:

⁸⁹ See Olivecrona K "Locke's Theory of Appropriation" (1974) 24 *Phil Q* 220-234 at 220; Mossoff A "Locke's Labor Lost" (2002) 9 *U Chi L Sch Roundtable* 155-164 at 161.

⁹⁰ See the discussion about scarcity at 3.2.2 above.

⁹¹ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 45.

⁹² Westbrook TJ "Owned: Finding a Place for Virtual World Property Rights" (2006) 3 *Michigan State LR* 779-812 at 791.

“[w]hatsoever [man] removes out of the state that nature hath provided and left it in, he hath mixed his labour with, and mixed with it something that is his own, and thereby makes it his property.”⁹³

To paraphrase in virtual-world terminology: Whatever a person removes from the natural state that it occurs in (provided by the developer for this purpose), has exerted time and effort on it and joined it to something that is his own, becomes his property (at least inside the virtual world).

Without going into too much detail and constricting the argument with semantics,⁹⁴ Locke’s labour-desert theory would seem to be a good justification for the allocation of property interests to players. Expending effort and labour on transforming the thing from its natural state into something that is more valuable afterwards would justify the conclusion that the person who expends such effort should be entitled to a property interest in it.

When this labour-desert theory is applied to the virtual-world context, it would seem as if players should acquire a property claim in certain virtual-world assets via their avatars, on which they have exerted their effort. The assets in the virtual world are created from a combination of the time and effort expended by the players while

⁹³ Locke J *Two Treatises of Government* (1690, Laslett P ed 1988) “Second Treatise of Government” §27 328.

⁹⁴ See the discussion above about taking Locke’s words too literally.

making use of the (developer-designed and -provided) 'naturally occurring' resources in the virtual world.⁹⁵

Apart from the general objections raised above, there are three main objections to this theory in terms of virtual property. The first is that playing or participating in a virtual world game does not constitute so-called "effort". This argument is not convincing because not all virtual worlds are used solely for entertainment purposes and because modern society accepts that professional athletes are richly rewarded for playing games in the real world.⁹⁶ A number of virtual worlds are designed to reward a player for painstakingly repeating the same actions for an extended period, in order to reap an eventual reward. Take for example⁹⁷ the player who chose the occupation of being a blacksmith.⁹⁸ In order to progress in the game and participate

⁹⁵ This issue is discussed in more detail below. However, the fact that the developer was the initial creator of the resources should be regarded as being provided as an incidental aspect to the creation and operation of the virtual world. One should keep in mind that since the developer is metaphorically speaking in the same position as God with regard to the creation of the resources, this should not be seen as negating the application of Locke's theory.

⁹⁶ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 46.

⁹⁷ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 47 fn 246.

⁹⁸ "In addition to the four hours of clicking, Stolle had had to come up with the money for the deed. To get the money, he had to sell his old house. To get that house in the first place, he had to spend hours crafting virtual swords and plate mail to sell to a steady clientele of about three dozen fellow players. To attract and keep that clientele, he had to bring Nils Hansen's blacksmithing skills up to Grandmaster. To reach that level, Stolle spent six months doing nothing but smithing: He clicked on hillsides to mine ore, headed to a forge to click the ore into ingots, clicked again to turn the ingots into weapons and armor, and then headed back to the hills to start all over again, each time raising Nils' skill level some tiny fraction of a percentage point, inching him closer to the distant goal of 100 points

in the virtual society by means of virtually bettering his patrimonial situation, the player has to start by mining ore. This is repeated as often as ore is needed to forge new metal ingots. After that, he has to create weapons and armour for resale. The result of all this labour is a saleable item. However, to make another, he has to start the process over again at the mines. This could quite easily continue for more than six months before the player reaches the level of a master blacksmith. The effort required to achieve this is certainly not equated to relaxation and more closely resembles an actual job. It also fits in very well with Locke's vision of desert for labour expended.

The second objection is summed up by Nozick's example of a person spilling a bottle of (radioactive) tomato juice into the ocean, and then asking if he had acquired ownership of the sea by his effort and mixture of his own property.⁹⁹ Corporate owners might similarly argue that a player's efforts in a virtual world amount to the same result as the release of Nozick's tomato juice, i.e. futility.¹⁰⁰ However, this is addressed by only recognising claims to those objects of property that a player can legitimately claim to have created by means of his own labour. For example, a sword, breastplate or castle that he has built himself.

and the illustrious title of Grandmaster Blacksmith": Dibbel J "The Unreal Estate Boom: The 79th Richest Nation on Earth Doesn't Exist" 2003 *Wired.com* at http://www.wired.com/wired/archive/11.01/gaming_pr.html (10 Oct 2010).

⁹⁹ Nozick R *Anarchy, State and Utopia* (1974) 175.

¹⁰⁰ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 47.

The third objection is raised by Nelson,¹⁰¹ who focuses on the semantics of Locke's theory. He argues that the application of Locke's labour theory to the allocation of property rights to users of virtual worlds is wrong because it "ignores fundamental aspects of Locke's labour theory of acquisition as well as the current state of property law regarding labour and property acquisition."¹⁰² His first assumption rests on his argument that the ore mined by the player does not exist in a natural state for the player to mix his labour with. This, he argues, is because the game developer has created the ore and because of this the player is in the position of an ironsmith who did not mine the ore himself, but rather bought¹⁰³ the ore from a seller. This means that he did not acquire a property right in the ore on the strength of Locke's labour theory, but rather due to the fact that he bought it. In other words, Nelson argues that it is a form of derivative instead of original acquisition of ownership. However, Nelson accedes that in the real world a blacksmith mining his own ore would get a property right in it. He also agrees that "... virtual worlds simulate this process by allowing users to mine ore, transport it back to a forge, and

¹⁰¹ Nelson JW "The Virtual Property Problem" 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 10.

¹⁰² Nelson JW "The Virtual Property Problem" 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 11.

¹⁰³ The player could also have stolen it (if this is allowed by the game-code). In real world law it shifts the example from *occupatio* (occupation) to *specificatio* (manufacture) with the result that the worker will acquire ownership if something real is created and the work was not done in terms of an agreement with the owner of the material. For a general discussion about *occupatio* and *specificatio* see Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 137,156; Van der Merwe CG *Sakereg* (2nd ed 1989) 214, 258.

then craft a sword.”¹⁰⁴ The argument that it is the labour of the developer that created the ore and that the miner therefore does not benefit from Locke’s theory, seems to be a very technical, semantic application of the theory to the developments in modern society.

I disagree. I find it probable that Locke would have approved of the application of his labour theory to virtual worlds, but would have updated it to encompass the new virtual world concept. It is important to remember that the developer is standing in the position of God as the creator of the virtual world and all the resources in it (to make use of the Lockean terminology). In the real world, even though God created the real iron ore, the miner is still able to acquire property rights. The same result applies in the virtual world.¹⁰⁵ In addition, even though the relationship between developer and player is contractual and not overtly political,¹⁰⁶ the developer has no interest in retaining property rights in the ore and indeed designs the virtual world so

¹⁰⁴ Nelson JW “The Virtual Property Problem” 2009 *SSRN* at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 11.

¹⁰⁵ It is clear that the developer builds these features into the virtual world in order to encourage players to join and take part in the virtual world. However, the fact that developers do this purely for their own financial benefit should not negate the interest the players have in the property that they create. For a general discussion of how this dichotomy between the rights of the players and developers is perceived, see the discussion about the EULAs in chapter 3 above as well as Fairfield JAT “Anti-Social Contracts: The Contractual Governance of Virtual Worlds” (2008) 53 *McGill LJ* 427-476.

¹⁰⁶ Players do sometimes acquire and demand political rights inside the virtual worlds that they inhabit. See the discussion in chapter 2 about this social aspect of virtual worlds. Also see in general: Citron DK “Cyber Civil Rights” (2008) 89 *BUL Rev* 61-125.

that is mimics the real one. The developer also designs and facilitates the process that is used to create new items, such as progressing from a raw material that is mined to the sword as a final saleable product.

The second assumption about the current state of property law regarding labour and property acquisition is not relevant for the purposes of this dissertation. This is partly due to the fact that Nelson relies solely on United States case law that deals with the capture of wild animals and the compilation of factual data in a phone book.¹⁰⁷

4 4 3 Utilitarian justifications

Bentham, the father of utilitarianism, is said to have created the theory of property that became the “dominant justification for the creation of private property.”¹⁰⁸ This is not his only legacy as he is also the acknowledged leader of the so-called “philosophical radicals”; political reformers who included some well-known names

¹⁰⁷ Nelson JW “The Virtual Property Problem” 2009 *SSRN* at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 13-14. See the discussion about the acquisition of ownership inside virtual worlds in chapter 5 below for a successful application of the South African property law to the capture of wild animals inside a virtual world. It shows that *occupatio* of wild animals is one of the most important methods of original acquisition of virtual property inside a virtual world. See also Erlank W “Acquisition of Ownership inside Virtual Worlds” 2012 *SSRN* (forthcoming (2012) 75 *THRHR*) 1-24 at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2019110 (30 Mar 2012) 1-24.

¹⁰⁸ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 44.

such as John Mill and his son, John Stuart Mill.¹⁰⁹ Bentham was an empiricist who advocated quantitative methods of social observation as well the development of decontextualized (scientific) language that was devoid of emotional and ambiguous terms.¹¹⁰ He was especially critical of the law because legal language has the ability to obfuscate and mystify easy concepts that are commonplace. Consequently he searched for a way in which the legal language could be demystified and he focused on sentences, rather than words, as his unit of analysis.¹¹¹ As a reformer, Bentham focused on political, social and legal reform. To facilitate these reforms he made use of the utilitarian theory.¹¹² Legal practitioners and scholars most often encounter utilitarianism in the form that stems from Bentham's work called *An Introduction to the Principles of Morals and Legislation*.¹¹³ Bentham initially refers to the "principle of utility" as his guiding theory for reform, but he later abandons the reference to utility

¹⁰⁹ Martin LL "Jeremy Bentham: Utilitarianism, Public Policy and the Administrative State" (1997) 3 *JMH* 272-282 at 272.

¹¹⁰ Martin LL "Jeremy Bentham: Utilitarianism, Public Policy and the Administrative State" (1997) 3 *JMH* 272-282 at 273.

¹¹¹ This focus on sentences predates the work done by Ludwig Wittgenstein and Bertrand Russel. See Martin LL "Jeremy Bentham: Utilitarianism, Public Policy and the Administrative State" (1997) 3 *JMH* 272-282 at 273.

¹¹² Martin LL "Jeremy Bentham: Utilitarianism, Public Policy and the Administrative State" (1997) 3 *JMH* 272-282 at 274.

¹¹³ Bentham J *An Introduction to the Principles of Morals and Legislation* (1789, Burns JH & Hart HLA eds 2005).

and redefines it as the “greatest happiness” principle.¹¹⁴ In whatever way one prefers to refer to this principle, it can be defined as “the principle of seeking the greatest good for the greatest number” and is seen as the basis for how modern economics is applied to almost all aspects of human endeavour.¹¹⁵

When applied to property law, utilitarianism is used to provide a general justification of the institution of private property, as well as to function as a relatively simple bright-line policy.¹¹⁶ This policy states that a private property interest should be granted to someone (or something) if the overall effect of the granting will be that the overall utility or social welfare will be increased by it. An example of this application of the utilitarian concept of rights allocation to intellectual property is in the United States Constitution,¹¹⁷ where a utilitarian justification for the protection of intellectual property rights is given. It states that the purpose of protection of patents and copyright is that it should benefit the promotion of the progress of science and

¹¹⁴ For Bentham’s full discussion of this, together with his annotations regarding his change of terminology from “principle of utility” to “greatest happiness” see Bentham J *An Introduction to the Principles of Morals and Legislation* (1789, Burns JH & Hart HLA eds 2005) 11-14. See also Martin LL “Jeremy Bentham: Utilitarianism, Public Policy and the Administrative State” (1997) 3 *JMH* 272-282 at 277.

¹¹⁵ Westbrook TJ “Owned: Finding a Place for Virtual World Property Rights” (2006) 3 *Michigan State LR* 779-812 at 795.

¹¹⁶ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 44.

¹¹⁷ US Constitution art 1 § 8 cl 8.

useful arts.¹¹⁸ In other words, rights are granted for the social objectives of advancing knowledge and producing useful products.¹¹⁹

When discussing the modern day use of the term “utilitarianism”, Martin¹²⁰ explains it in the following way:

“Today the term ‘utilitarianism’ really has no precise meaning. However, the basic philosophical or moral tenet of utilitarianism, as the concept is generally understood, is simply that the merits of all actions must be judged by their consequences. Today, utilitarianism is considered to be a teleological or consequential, ethical theory. Teleological ethical theories hold that the moral worth of actions must be judged by their consequences. This moral calculus supposedly allows the calculator to arrive at a measure of the utility involved in a given action or the various utilities involved in alternate actions.”¹²¹

Hunter and Lastowka argue that the utilitarian justification for real world property rights in the virtual world is based on the economic importance that virtual property has on the felicific calculus.¹²² This is qualified by them as applicable only to certain

¹¹⁸ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 44; Cohen LR & Noll RG “Intellectual Property, Antitrust and the New Economy” (2001) 62 *U Pitt L Rev* 453-474 at 461.

¹¹⁹ Cohen LR & Noll RG “Intellectual Property, Antitrust and the New Economy” (2001) 62 *U Pitt L Rev* 453-474 at 461.

¹²⁰ Martin LL “Jeremy Bentham: Utilitarianism, Public Policy and the Administrative State” (1997) 3 *JMH* 272-282 at 277.

¹²¹ Martin LL “Jeremy Bentham: Utilitarianism, Public Policy and the Administrative State” (1997) 3 *JMH* 272-282 at 277.

¹²² Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 45. The *Merriam-Webster Online Dictionary* defines the felicific calculus as “a method of determining the

items, since the creation of most virtual-world assets seems to have almost no benefit for society on an individual basis.¹²³ As an example, they compare a groundbreaking novel or new building to the creation of an avatar or virtual breastplate.¹²⁴ While it is clear that the novel or building will have value for the outside world, the avatar or breastplate seems to have little value by comparison. However, while an avatar or virtual breastplate seems to have little value if viewed on an individual basis, it starts to add up quickly when viewed from a large-scale perspective.¹²⁵ It can clearly be seen from the huge amount of time and money that individuals invest in virtual worlds that they, as players, place a high value on the virtual objects they

rightness of an action by balancing the probable pleasures and pains that it would produce.” See Merriam-Webster “Felicific Calculus” 2011 *Merriam-Webster.com* at <http://www.merriam-webster.com/dictionary/felicific%20calculus> / (19 Dec 2011). Bentham formulated this method, which is also known as the utility calculus, the hedonistic calculus or the hedonic calculus: Webster’s “Felicific Calculus” 2001 *Webster’s Online Dictionary* at <http://www.websters-online-dictionary.org/definitions/FELICIFIC+CALCULUS?cx=partner-pub-0939450753529744%3Av0qd01-tdlq&cof=FORID%3A9&ie=UTF-8&q=FELICIFIC+CALCULUS&sa=Search#906> (19 Dec 2011). Although Utilitarianism and economic theory are often used interchangeably, there are those who argue that the two theories must be viewed separately. For example, Posner argues that the economic norm called “‘wealth maximization’ provides a firmer basis for a normative theory of law than does utilitarianism.” See Posner RA “Utilitarianism, Economics, and Legal Theory” (1979) 8 *JLS* 103-140 at 103.

¹²³ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 45.

¹²⁴ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 45.

¹²⁵ Bearing in mind the huge amount of capital that is traded in and out of virtual worlds on a daily basis. For a discussion about this see chapter 2 above.

create and use.¹²⁶ The reasoning is that because of this high value for the individual as well as the collective economic value of all the individual items placed together, there are utilitarian grounds for granting property rights in those items. Lastowka and Hunter describe this effect as follows:

“From the utilitarian perspective, a societal good is composed simply of aggregate individual goods. Since millions of people labor to create objects of value in virtual worlds, there are utilitarian grounds for granting property rights based on the value of the transactions to the individual users. Even on this narrow view of the social utility of avatars and virtual assets, utilitarianism provides adequate justification for considering these artifacts property. Indeed, virtual property might be analogised to patents, the majority of which, overwhelming evidence shows, are worthless to society.”¹²⁷

Fairfield, while building upon Lastowka and Hunter’s description of the utilitarian theory of property as a normative justification for virtual property, expanded on it by narrowing his focus to a law and economics justification.¹²⁸ He discusses why property rights are granted as incentive for the proper development and use of newly emerging resources.¹²⁹ He makes a distinction between virtual property and

¹²⁶ See the discussion regarding the economic aspects of virtual worlds discussed earlier in this chapter.

¹²⁷ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 45.

¹²⁸ However, he focuses on virtual property in the wide sense and includes virtual property found outside the confines of a virtual world; such as URLs, email accounts, websites, chat-rooms, bank accounts and electronic chattel paper. See: Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1055-1058.

¹²⁹ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1065.

intellectual property and argues that many important online resources should be regulated within the common law of property, because they have nothing to do with intellectual property.¹³⁰ Fairfield notes that the improper allocation of property rights in virtual environments could lead to an undesirable anticommons,¹³¹ due to the interconnected nature of virtual environments.¹³² If an anticommons should emerge in a virtual environment, the possible overlapping property rights¹³³ could prevent anyone from making proper beneficial use of the property and lead to the overall reduction of value for everyone.¹³⁴ He suggests that property rights should rather be allocated in such a way that they cut across potential conflicts and states that “the law should act to limit an anticommons in virtual property.”¹³⁵ This would allow for the

¹³⁰ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1064.

¹³¹ In essence the tragedy of the commons refers to a situation where there are too many people who have the privilege to use a commons and thereby resulting in its overuse. By contrast, the tragedy of the anticommons refers to a situation where too many owners are endowed with the right to exclude others from a scarce resource, resulting in an underuse of the common resource. For more information on the commons as applied to property, see Hardin G “The Tragedy of the Commons” (1968) 162 *Sci* 1243-1248 as well as Rose CM “The Comedy of the Commons: Custom, Commerce, and Inherently Public Property” (1986) 53 *U Chi L Rev* 711-781. For an in depth explanation of the anticommons (and origin of the term), see Heller MA “The Tragedy of the Anticommons: Property in Transition from Marx to Markets” (1998) 111 *Harv LR* 621-688.

¹³² Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1065-1067.

¹³³ He refers to this effect as the fragmentation of virtual property. See Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1076.

¹³⁴ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1069.

¹³⁵ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1076. If an anticommons with regard to virtual property emerges inside a virtual world, it would create massive problems for the players. This will be due to the fact that it will always be necessary to build on the work of other

proper use of an object to which such property rights might attach.¹³⁶ When applied to virtual property, Fairfield argues that virtual objects could be defined as useable objects, and therefore they are the property unit to which property rights should be attached in a virtual environment.¹³⁷

Lastowka and Hunter mention two obvious objections to the granting of property rights based on the application of utilitarianism to virtual world property.¹³⁸ The first concerns the application of utilitarianism to the field of intellectual property law. In this case, utilitarianism is used as justification for providing exclusive rights to authors. These rights are limited, usually in their extent or the time that they last. This objection does not really affect the assertion of property rights in virtual items, but is rather an indication that virtual property rights might need to be limited in the same way as intellectual property rights, i.e. limitations might be placed on the time, subject matter or scope of the virtual property rights.¹³⁹

people when creating anything inside a virtual world. Therefore, no-one would be able to create anything new in the virtual world.

¹³⁶ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1077.

¹³⁷ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1077-1078.

¹³⁸ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 45.

¹³⁹ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 45. In the real world the limitation of property rights is also an accepted part of property law. Even in instances where one may consider ownership of property to be "absolute" one's use and enjoyment of one's property is limited by administrative regulation, legislation, neighbour law, and morals, amongst others.

The second objection is that the net effect of granting virtual property rights to individual users could be that the welfare of other virtual world participants, as well as the developers, will be reduced. As a consequence, this will reduce the utility to society in general and therefore, according to utilitarian grounds, such virtual property rights should not be granted. Lastowka and Hunter state that this objection is misplaced. They counter the objection, stating that one should realise that the utilitarian theory is used as justification for the creation and not the allocation of property interests.¹⁴⁰ It should not be blindly accepted that because EULAs allocate all property rights to the developers and none to the players, that courts will not reject such restrictions and that players would not challenge this allocation. In other words, property rights exist in virtual worlds. Just because they are not allocated to players at the moment does not mean that these rights do not exist.

4 4 4 Personality justifications

Hegel,¹⁴¹ who is regarded as the father of personality theory,¹⁴² had the view that property should be seen as an extension of one's personality.¹⁴³ The essence of his theory and those based upon it, is that "property rights are related – either as

¹⁴⁰ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 45; 50.

¹⁴¹ Hegel GWF *Hegel's Philosophy of Right* (1896, Knox TM trans 1967).

¹⁴² Radin MJ "Property and Personhood" (1982) 34 *Stan L Rev* 957-1015 at 958.

¹⁴³ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 48.

necessary conditions for, or as connected to – human rights such as liberty, identity and privacy.”¹⁴⁴ Alternatively, personality theory is described by Radin¹⁴⁵ as the idea that property rights are linked to personhood and identity.¹⁴⁶ As such, property rights are justified when objects are inseparably bound up with the personality and liberty of their owner.¹⁴⁷ Radin’s view on personality theory will be used to justify virtual property in this section.¹⁴⁸

¹⁴⁴ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 48.

¹⁴⁵ Radin MJ "Property and Personhood" (1982) 34 *Stan L Rev* 957-1015.

¹⁴⁶ For purposes of this dissertation the terms "personality theory" and "personhood theory" are used interchangeably. Radin prefers to use the term "personhood" in her seminal article "Property and Personhood". See Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 721 fn 24.

¹⁴⁷ Radin MJ "Property and Personhood" (1982) 34 *Stan L Rev* 957-1015 at 957; Westbrook TJ "Owned: Finding a Place for Virtual World Property Rights" (2006) 3 *Michigan State LR* 779-812 at 798.

¹⁴⁸ Radin’s theory has come under harsh attack from especially Schnably. It has led to a heated (and sometimes amusing) academic debate between the two. However, for the purposes of this application of her theory to virtual property I do not find it necessary to add to the debate and accept Radin’s application of the theory. Schnably’s initial critique to "Property and Personhood" appeared in Schnably SJ "Property and Pragmatism: A Critique of Radin’s Theory of Property and Personhood" (1993) 45 *Stan L Rev* 347-407 and Radin’s reply (in the same publication) in Radin MJ "Lacking a Transformative Social Theory: A Response" (1993) 45 *Stan L Rev* 409-424. She summarises and addresses the debate between them in her book as follows: "Stephen Schnably, for example, finds a 'conservative bias' in my work. His is a good example of criticism from the left, because he criticizes me both for being too consensus-orientated and for failing to elaborate a 'theory of transformative social change.' These criticisms reflect two separate strands of contemporary critical thought. The critical rhetoric calling for incessant disruption of consensus resonates with the restless methodology of deconstruction, while the critical rhetoric calling for overarching transformative theory resonates

Boone¹⁴⁹ wrote an article on the application of the personhood theory to virtual property that focuses on the value of Radin's normative argument for the justification of property rights for virtual property. Radin's theory can be summarised as follows.¹⁵⁰ Property or property relations can be either personal or fungible. The first, personal property, are things that have become bound up with the individual. Radin describes these as "objects that are closely bound up with personhood because they are part of the way we constitute ourselves as continuing personal entities in the world."¹⁵¹ If a person were to lose such personal property it would be a much worse

with the utopian longing for total and final revolution": Radin MJ *Reinterpreting Property* (1993) 27 (footnotes omitted).

¹⁴⁹ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747. Boone analyses the connection between virtual property and personhood extensively and relies mainly on Radin's personhood theory for his arguments. He manages to cover the theory in detail and I only highlight one or two of his most important findings here. For the purposes of this dissertation it is sufficient to rely mainly on Radin's initial work, Radin MJ "Property and Personhood" (1982) 34 *Stan L Rev* 957-1015. However, Boone analyses Radin's development of the theory by also integrating her later works, amongst others, her book Radin MJ *Reinterpreting Property* (1993) and Radin MJ "Market-Inalienability" (1987) 100 *Harv L Rev* 1849-1937. Also see in general: Radin MJ "Lacking a Transformative Social Theory: A Response" (1993) 45 *Stan L Rev* 409-424; Radin MJ "The Colin Ruagh Thomas O'Fallon Memorial Lecture on Reconsidering Personhood" (1995) 74 *Or L Rev* 423-448 and Radin MJ *Contested Commodities: The Trouble with Trade in Sex, Children, Body Parts, and Other Things* (1996).

¹⁵⁰ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 723.

¹⁵¹ Radin MJ "Property and Personhood" (1982) 34 *Stan L Rev* 957-1015 at 959.

loss than its correlative monetary value would indicate.¹⁵² The classic example of this will be recognition of the fact that due to the subjective sentimental value of something for a specific person, there should be a property interest in that thing.¹⁵³ Examples of these are things like wedding rings, homes and body parts (now also virtual wedding rings and virtual homes).¹⁵⁴ Even in the absence of any other normative justifications for the existence of property rights in such items, personality theory determines that such property rights should be recognised in order to fulfil the need for self-realisation and other human needs.¹⁵⁵

Fungible property is the second type. If something is not regarded as “personal property”, according to Radin it would be classified as “fungible property”. Fungible property could be defined as “property that is perfectly replaceable.”¹⁵⁶ This is the theoretical opposite of “personal property”.¹⁵⁷ Radin states that “[t]he opposite of holding an object that has become part of oneself is holding an object that is

¹⁵² Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 723.

¹⁵³ Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 959-960; see also Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 723.

¹⁵⁴ See especially Radin MJ “Market-Inalienability” (1987) 100 *Harv L Rev* 1849-1937 at 1855-1859 where she discusses the contested issues relating to the commodification of objects such as infants, children, human organs etc.

¹⁵⁵ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 48.

¹⁵⁶ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 723.

¹⁵⁷ Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 960.

perfectly replaceable with other goods of equal market value.”¹⁵⁸ The prime example of such fungible property would be money. Other examples are items that are held purely instrumentally, such as a wedding ring held by a jeweller (for the purposes of resale), an automobile held by a motor dealer and an apartment in the hands of a landlord, held for the sole purpose of letting.¹⁵⁹ Even though Radin categorises property as being either one of the two types of property mentioned above, the classification should be seen as a continuum between the two rather than a dichotomy.¹⁶⁰ Since a wedding ring can be either personal or fungible property, it is clear that the nature of the property is not determined by some type of characteristic, but rather by an individual’s relationship with the thing.¹⁶¹ The test for determining whether it is fungible or personal will be connected to the question of “whether the thing and the rights in it have become bound up with the individual.”¹⁶² Or, in terms of

¹⁵⁸ Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 959-960.

¹⁵⁹ Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 960.

¹⁶⁰ Radin MJ “The Colin Ruagh Thomas O’Fallon Memorial Lecture on Reconsidering Personhood” (1995) 74 *Or L Rev* 423-448 at 427; Radin MJ *Reinterpreting Property* (1993) 3. See also Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 723.

¹⁶¹ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 725.

¹⁶² Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 724. Radin states that “[o]ne may gauge the strength or the significance of someone’s relationship with an object by the kind of pain that would be occasioned by its loss. On this view, an object is closely related to one’s personhood if its loss causes pain that cannot be relieved by the object’s replacement. If so, that particular object is bound up with the holder. For instance, if a wedding ring is stolen from a jeweller, insurance proceeds can reimburse the jeweller, but if a wedding ring is stolen from a loving wearer, the price of the replacement will not restore the status

the classical subject/object relationships, “property becomes personal when it becomes more subject and less object, which is other to or outside of the self/subject.”¹⁶³ In essence, if this happens, property is said to contribute to the self-constitution¹⁶⁴ of an individual.¹⁶⁵

A normative aspect is introduced into Radin’s theory that poses the question of whether a connection between a person and an object should be recognised as personal and as such be afforded greater property protection. In other words, not all connections to property that are considered to be personal by the individual (subjectively speaking) will be protected as personal.¹⁶⁶ Radin¹⁶⁷ acknowledges the

quo – perhaps no amount of money can do so”: Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 959.

¹⁶³ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 724.

¹⁶⁴ “Constitutive” or “self-constitution” can be used interchangeably with “personal” in terms of Radin’s theory. Radin notes in the introduction to *Reinterpreting Property*, which she wrote after her initial “Property and Personhood” article, that she maybe should rather have referred to “personal property” as “constitutive”, since “personal property” already means something else: Radin MJ *Reinterpreting Property* (1993) 2.

¹⁶⁵ Radin MJ “The Colin Ruagh Thomas O’Fallon Memorial Lecture on Reconsidering Personhood” (1995) 74 *Or L Rev* 423-448 at 426.

¹⁶⁶ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 726.

¹⁶⁷ Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 961. See also Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 726.

fact that there can be both good (healthy)¹⁶⁸ and bad (fetishistic) object-relations between a person and an object. If such a connection is bad or fetishistic, it should not be afforded protection as being “personal”. She states that:

“[if] there is a traditional understanding that a well-developed person must invest herself to some extent in external objects, there is no less a traditional understanding that one should not invest oneself *in the wrong way* or *to too great an extent* in external objects. Property is damnation as well as salvation, object-fetishism as well as moral groundwork.”¹⁶⁹

She continues that the relationship between a shoe-fetishist and shoe will not be respected like the relationship between a spouse and a wedding ring. If someone should live just for their material objects, then they are not considered to be well-developed persons, and are regarded as “lacking some important attribute of humanity.”¹⁷⁰

How then does this theory affect property on a practical level? The personhood theory has two effects on property rights.¹⁷¹ Firstly it appears that personal property is given preferential treatment to fungible property. If something is classified as

¹⁶⁸ Although Radin initially used the criterion of “health” or “healthy self-constitution”, she later redefined the criterion to “human flourishing”. See Radin MJ *Reinterpreting Property* (1993) 5.

¹⁶⁹ Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 961.

¹⁷⁰ Radin MJ “Property and Personhood” (1982) 34 *Stan L Rev* 957-1015 at 961. This distinction between “fetishistic” and “healthy” connections between objects and persons is of the utmost importance when applied to virtual property, especially because one finds such fetishistic connections between many players and their virtual property.

¹⁷¹ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 729.

“personal” property, that personal property interest should be protected to the detriment of a fungible property interest held by another person. Secondly, an object that has been classified as “personal” rather than fungible could be regarded in certain instances as being “market-inalienable” and should be maintained in a non-commodified state.¹⁷² The example given to illustrate these two effects concerns a tenant’s property right, which can be considered “personal” and is maintained in preference to the landlord’s fungible property interest in the same object.

This theory is very useful for application to the field of virtual property, especially since it draws no distinction between real world and virtual-world property. It is equally easily applied to both instances because the objective value of the property does not need to be determined. For all intents and purposes a person can feel as closely connected to their virtual property as they are to their real world property. It is also useful for explaining why property rights should be granted to players with regard to their avatars. People feel connected to their avatars as projections of their selves, and not purely as things.¹⁷³

¹⁷² Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 730.

¹⁷³ The concept of the avatar as cyborg is discussed by Lastowka & Hunter as an example of the avatar being a mechanical extension of one’s persona. See Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74 at 63. Also see the discussion in chapter 2.

When one applies the personhood theory to virtual property, the following major issues are identified by Boone.¹⁷⁴ Boone firstly sets out to determine whether virtual world property can be classified as personal property with reference to Radin's theory and secondly he examines the implications that would flow from an affirmative answer to the first issue. The first issue is indeed answered in the affirmative but, as with Radin's application thereof to real world property, there are also certain exceptions and limitations.¹⁷⁵ Boone finds that one first needs to determine whether virtual-world property can become bound up with the self and then whether such a connection is "healthy" or, rather, supports human flourishing. Many players do indeed place a high subjective value on their virtual-world property and spend large amounts of money on its acquisition and maintenance.¹⁷⁶ In addition to this, it is clear that individuals also strongly identify with certain virtual-world objects and particularly with avatars.¹⁷⁷ While not all players would identify with their virtual-world property or avatars to such an extent that they would be considered to meet the required blurring of subject-object relationship required by the theory, it is likely that some players will

¹⁷⁴ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 730-744.

¹⁷⁵ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 731.

¹⁷⁶ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 731. See also the discussion regarding the economy of virtual worlds above at 4 2.

¹⁷⁷ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 63-68. See also Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 731.

indeed meet this requirement.¹⁷⁸ Apart from meeting the requirement of identifying with and showing a self-constitutive connection to his or her virtual property, a player would still need to show that the connection supported human flourishing (or was healthy), before the property in question could be considered to be regarded as “personal”.¹⁷⁹ In other words, just like with real world property, the question whether virtual property can be regarded as personal or fungible is not clear cut and will always be subject to a factual determination of the specific circumstances. Just as a wedding ring will be regarded as personal for one person and fungible for another in the real world, the same will apply in the virtual world. When one person buys and sells virtual real estate for monetary gain, he or she will have a fungible property interest in it. However, if a player builds or rents a virtual home, he or she may regard the virtual home as “personal”, depending on whether the connection between the subject and object is healthy or promotes human flourishing or not.

Boone mentions the generally negative attitude of society towards the relationship between players and their virtual property and finds that even though there may be instances where there is a fetishistic connection between player and virtual property, it would seem that the negative attitude is fanned by the sensationalistic nature of

¹⁷⁸ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 731.

¹⁷⁹ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 732.

media reporting that tends to focus on the dark side of virtual world interaction.¹⁸⁰ It should therefore not be *the* determining factor in the enquiry whether virtual property could add to human flourishing.

Once it is accepted that recognition and protection of property might be justified because it has a constitutive effect on the self, there would seem to be a normative basis for accepting that property can be claimed in such things as virtual chattels, virtual real estate and, by extension, avatars.¹⁸¹ As with its real world counterpart, if virtual property is personal according to Radin's theory, it can also affect property rights in the same two ways. These are firstly, that a personal property interest in a virtual property object may be given preferential treatment to a fungible property interest held by another party and, secondly, that the same personal property might be subject to restricted alienability.¹⁸²

When applied to the virtual world, one would most likely encounter these effects in the following two ways. In terms of the competing property interests, these interests would in all probability manifest as disputes between players and developers in the virtual worlds. If a player's virtual-world property is personal, it

¹⁸⁰ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 733-734.

¹⁸¹ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 49.

¹⁸² For an in-depth discussion on the possible pitfalls and consequences of finding that virtual world property is personal, see Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 736-744. Boone makes use of one of Bartle's pitfalls regarding virtual property that is discussed below. See Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 9.

would follow that the property rights of the virtual-world developers would be fungible and therefore the player's rights would be favoured and enjoy more protection.¹⁸³ This situation would also apply if two players both have a property interest in the same virtual property. As a practical example, this scenario is like the one of rent control in the real world, where both a tenant and landlord hold property interests in the same residential rental unit. In this case, rent control legislation protects the personal interests of the tenant to the detriment of the landlord's fungible property rights.¹⁸⁴ In the virtual world, the player's property rights in virtual-world objects are analogous to those of the tenant, while the property rights of the developer are analogous to those of the landlord.

The problem with this application of the personhood theory is that due to the interdependence of these rights, the protection of the one person's right will lead to the detriment of the other person. In the virtual world, the player's rights would be protected to the detriment of those of the developer.¹⁸⁵ Although this would not seem to be unreasonable or create a problem *per se*, there are those who think that this protection of players' rights to the detriment of those of the developer could have a

¹⁸³ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 737.

¹⁸⁴ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 737.

¹⁸⁵ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 738.

negative knock-on effect by stunting both the growth of virtual worlds and their concomitant economies.¹⁸⁶

The second effect of the application of the personhood theory to virtual worlds is that it might result in the inalienability of virtual world property. An argument could be made against this application of the personality theory, which could result in the effect that due to the close personal relationship a player has with her avatar, broad alienability would not be justified.¹⁸⁷ In terms of this argument, virtual property could be given away, but not sold.¹⁸⁸ However, wedding rings and even non-essential body parts are accepted as being alienable.

The result of determining that virtual property could be market-inalienable could stand in direct opposition to the reason why players would want property rights in their virtual items. Therefore, the issue of real money trade or the (il)legality selling one's virtual property would possibly fall away if these items are finally determined to be inalienable.¹⁸⁹ If the goal of the acquisition of property rights is the

¹⁸⁶ For some practical examples of how this could work see the discussion later in this chapter regarding the responsibility of developers as one of the pitfalls of virtual property. For an in-depth discussion see Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 as well as Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 738, 741.

¹⁸⁷ In other words, it could be argued that in certain instances virtual property could be regarded as market-inalienable. See the discussion about inalienability above.

¹⁸⁸ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 741.

¹⁸⁹ Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 741.

commodification and market-alienability of virtual property, the “necessary prerequisites to rights of alienation that enable real money transfer are antithetical to personal property under the personhood theory.”¹⁹⁰ Consequently, Boone argues that the application of the personhood theory to virtual property would not provide support for those players who seek the right to sell their virtual world property.¹⁹¹ However, it would be beneficial for players who really have a personal connection to their virtual property and would act to protect their interests against the fungible interests of the developers who wish to impose on their rights.

This negative view of the application of the personhood theory to the acquisition of the right to alienate virtual property could be viewed in a more positive way. One should bear in mind that the theory is not applied strictly as a dichotomy between personal and fungible property and that not all personal property is considered inalienable simply because of its personal importance. It will always be an *ad hoc* question of fact to determine the level of personhood protection that is required and the categorisation of a virtual object. In the first case, the question will be whether the object is so closely connected to the person as to be considered entirely personal – this will not always be the case. Secondly, one must enquire whether, even though the object is regarded as personal, it is also market-inalienable. This will

¹⁹⁰ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 742.

¹⁹¹ Boone MS “Virtual Property and Personhood” (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 742.

not always be the case either. Therefore, the personhood theory could justify in certain instances the protection of property interests for players who do wish to sell their “personal” virtual property.¹⁹² If one were to re-examine the second consequence of the application of the personhood theory and not accept that every object that is personal is also market-inalienable, then alienability should not pose an obstacle to the application of the theory, especially not when one considers the virtual world relationship between the avatar and player.¹⁹³ This (modern) reluctance to consider human life as the subject of property law should not be a barrier to accept avatars as alienable, even though the level of realism inside virtual worlds is continually increasing.¹⁹⁴

Boone concludes that individuals are moving more of their activities online into computer-mediated space and that more of the physical world is becoming computer-mediated.¹⁹⁵ While the application of Radin’s theory does not provide any

¹⁹² Much like in the real world where people would otherwise not be able to sell their family homes.

¹⁹³ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 49.

¹⁹⁴ Eventually, as the barrier between the real world and the virtual one diminishes, this statement might need to be reconsidered. If a player should be so closely linked to the identity of his or her avatar that there could be physical and psychological repercussions from the separation of the two (as is illustrated in a number of new sci-fi movies), then the ethics of alienability of avatars would have to be reconsidered. For a more detailed discussion about the legal and ethical repercussions of personifying avatars, see the discussion about cyborgs, wizards and cyber civil rights in Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 51-72.

¹⁹⁵ Boone states that “[v]irtual worlds can be thought of as the ultimate embodiment of a computer-mediated world. As virtual worlds exist completely within a system of computers, every aspect within those worlds is computer-mediated. Examining the individual as an avatar in what could be fairly

concrete answers to the justification issue, it does form the basis for further argument and adaptations of the theory to be more properly moulded to the requirements of virtual worlds and the changes and developments in society.

4 4 5 Conclusion

In order to ascertain whether it is possible or indeed necessary to provide recognition and protection of virtual property rights, three normative theories were discussed.

The first theory is based on Locke's labour theory. This is the theory most used by players to justify their demand for recognition and protection of their virtual property interests. The main tenet of the use of this theory is based on the fact that players expend time and effort to acquire their virtual property and should therefore have a recognisable property interest in it. The counter-arguments for the use of this theory are based to a certain extent on the wilful misinterpretation and mischaracterisation of the gist of Locke's work. If one is willing to adapt Locke's theory to the needs of today's society and the novelty of the subject at hand, it does indeed provide some solid justification for recognition.

characterized as the most highly computer mediated environment currently existing may provide insight into how a future of increasing computer mediation will impact individuals. Increasing computer mediation of human activity provides increasing possibilities of interference with an individual's ability to act and thus with an individual's ability to self-constitute themselves": Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 747. He uses the term "computer-mediated" in the same way as the term "computer-moderated" has been used in chapter 2 above.

The second theory is based on the utilitarian justification of the felicific calculus. This justification basically states that a private property interest should be granted to someone (or something) if the overall effect of the granting thereof will be that the overall utility or social welfare will be increased by it. With this in mind, it is argued that in certain instances it would be better to allocate property interests to players rather than to leave the interests in the hands of the developers.

The third justification was made in terms of personality theory. It was argued that in certain instances property rights are justified when objects are inseparably bound up with the personality and liberty of their owner. Due to this, one will sometimes find that even though two different parties (player and developer in this case) both have a legitimate property interest in a specific object of virtual property, that the one party is more closely or personally connected to the object. The theory states that that person should then be allocated the required property rights to the detriment of the other.

Just like in the real world, when applied to virtual world situations, each of these normative theories has limits and qualifications. In certain instances it makes sense to rely on them, and in others not. These three normative theories provide strong normative grounds for the recognition and protection of property rights in virtual assets. The limitations on the rights will differ from theory to theory and will need to be dealt with on an *ad hoc* basis. I concur with Hunter and Lastowka in their conclusion that there seems to be no reason under these traditional property

theories why virtual property should not be viable for legal recognition and protection.¹⁹⁶ Of course it is possible to find incompatibilities and inconsistencies in these theories when they are analysed in detail, but this is beyond the scope of this dissertation. To the extent that the application of these theories to virtual property will be problematic due to non-essential details, the theories could and should be adapted and developed to deal more effectively with the modern requirements of a constantly changing society and legal landscape. Many other theories might also be analysed and could be applied to the virtual property question, but I accept for the purposes of the broader investigation of this dissertation that virtual property rights should be acknowledged to exist. The question would rather be about how to allocate these rights, than about the question of if they exist.¹⁹⁷

4 5 The problems of recognition and enforcement

It will be illuminating to investigate some of the major issues that could arise from neglecting the field of virtual property law. Up to now it has been shown that virtual worlds have primarily been used as a form of entertainment or for more productive reasons, like facilitating pilot training sessions in flight simulators.¹⁹⁸ However, there is a sharp increase in the use of virtual worlds for more serious types of pursuits

¹⁹⁶ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 49.

¹⁹⁷ Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 50.

¹⁹⁸ See chapter 2 above at 2.2 for a discussion of the history of virtual worlds.

such as social networking, representation of real world enterprises such as banks and national embassies, as well as areas where masses of people can be reached to impart information for educational or even political purposes.¹⁹⁹ Virtual worlds have become such an integral part of a large portion of the world's (computer using) population that many people would feel a tangible sense of loss if they were to be denied the right of access to their favourite virtual world.

The rise and fall of the virtual world of *The Sims Online (TSO)*²⁰⁰ highlighted some of the strong feelings and comments that previous inhabitants of *TSO* had expressed after they were told "their" virtual world would be shut down. Even though *TSO* was a relatively small virtual world compared to today's standards and it was aimed at a specific niche market of gamers, it still had a significant impact on the lives of the players. What would happen if one of the really big virtual worlds were to shut down their servers tomorrow? This could be due to the developer becoming bored with the project (in much the same way as happened with *TSO*) or due to *force majeure* in the form of an earthquake destroying its virtual world servers. An even more worrisome event would be if the ever present threat of insolvency, hanging like the sword of Damocles over major ventures, became a reality and the developers went bankrupt. Would the creditors decide to take over the management of the enterprise and continue the virtual world as a running enterprise, or would they

¹⁹⁹ One such event that has recently happened is where the new season of the popular television series *CSI* was simultaneously broadcast on TV as well as occurring interactively in *Second Life*.

²⁰⁰ See chapter 2 above at 2.2.3.

go after the immediately available tangible assets of the computer hardware and servers? In most cases the creditors would typically go after the real world assets of the server farms,²⁰¹ especially if they have been able to vest security rights in the equipment. This would leave the players stranded, without access to their virtual property and, if the current state of EULAs is to be taken as any indication, without any legal recourse.²⁰²

In whatever way it happens, the effects of the immediate shutdown of a virtual world such as *World of Warcraft* or a social world such as *Second Life* would have far-reaching and many unforeseen consequences. An immediate shutdown of a virtual world (or even worse of multiple virtual worlds) would have the effect that a number of markets based on the trade in virtual property would instantly collapse. The player who spent years of his time and thousands of dollars to build up a virtual patrimony would instantly lose everything. Where the player could have sold his collection of virtual items for tangible real world dollars the previous day, he now would have nothing. His legitimate expectations on capital return of his investments would be gone. One could argue (and be quite right) that it is just a game and that the game's developer made it quite clear in the EULA that it does not guarantee the persistence of the virtual world *in perpetuum*. The player only had a contractual right

²⁰¹ A server farm refers to a location (usually a warehouse) as well as the computer hardware and infrastructure where a large number of networked servers are located.

²⁰² See the discussion about EULAs in chapter 3 above at 3.6.

to access the game while the virtual world was available.²⁰³ It could also be argued that due to the vast public interest in the uninterrupted continuation of the virtual world, there should be a bailout from the government. Many people are dependent on the virtual world for subsistence²⁰⁴ and they depend on the earning potential that is facilitated by the world and created by the secondary markets around it. Many also rely on the social interaction aspects of the world to fulfil their needs. The government's responsibility to bail out such an enterprise is much more prominent if it could ensure that citizens are able to participate in the democratic society through the enabling mechanism of a virtual world.

Some authors argue that virtual worlds should be left to themselves and not be subject to public law interference,²⁰⁵ but it is in everyone's best interest that there should be at least some form of government oversight. The same can be said with reference to private law. Various interests could be protected through private law remedies. This would lead to the question of whether and how it will be possible to protect these interests through the application of normal property law principles.²⁰⁶

²⁰³ See the discussion about EULAs in chapter 3 above at 3.6.

²⁰⁴ For example the many gold-farmers, or people who own, operate or work in virtual shops in virtual worlds.

²⁰⁵ Deenihan KE "Leave Those Orcs Alone: Property Rights in Virtual Worlds" 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 1.

²⁰⁶ See the discussion of these remedies and possible solutions to the problem in chapter 7 below at 7.2.

In addition to the problem of non-recognition of virtual property interests one encounters the problem of how to enforce the protection of virtual property. How should and could someone's virtual property be protected if someone else infringes on those interests? Remedies²⁰⁷ are needed to do this. The most common example of the enforcement of these rights can be seen from the public law regulation by means of criminal prosecution of people who commit crimes that concern virtual property. China and South Korea are very progressive with their legislative protection of virtual property and actively prosecute individuals who steal virtual property. These countries explicitly recognise and protect these virtual property interests.²⁰⁸ In the West, this is still a concern that needs to be properly addressed. However, it is possible that the Dutch²⁰⁹ approach of recognising and enforcing virtual property interests by making use of criminal law sanctions will be followed by other Western jurisdictions.

Many authors argue for the private law protection of interests in virtual property.²¹⁰ Lastowka and Hunter²¹¹ argue that extending private law property rights

²⁰⁷ See the discussion about remedies in chapter 7 below at 7.2.

²⁰⁸ See the discussion of case-law concerning virtual property in the chapter 3 above at 3.5.

²⁰⁹ See the discussion of the Dutch *Runescape* cases in chapter 3 above at 3.5.4.

²¹⁰ See for example: Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102; Castronova E "Real Products in Imaginary Worlds" 2005 *Harvard Bus Rev* 20-22; Blazer C "The Five Indicia of Virtual Property" (2006) 5 *Pierce LR* 137-161; Moringiello JM "Towards a System of Estates in Virtual Property" (2007) 8-22 *Widener Law School Legal Studies Research Paper Series* at <http://ssrn.com/abstract=1070184>; Balkin JM "Virtual Liberty: Freedom to Design and Freedom to Play

to virtual world resources is logical, but they fail to say how property right protection should be applied to virtual resources.²¹² Accounts, avatars and items all fall under the virtual property umbrella. Fairfield²¹³ goes further by trying to define how these rights should work in a virtual world. Relying on the three characteristics of virtual property, Fairfield attempts to design a method with which to determine when virtual resources should be accorded property rights. These articles deal with the promotion of the idea that virtual resources should be accorded property rights, but do not provide answers on how this is to be achieved. Other authors also promote the idea that property rights should be extended to virtual resources, but do this by arguing that the common law of property should be extended to virtual worlds and resources.²¹⁴ These authors also fail to provide any concrete answers on how to achieve this. Due to this lack of answers in the literature, I will address many of these

in Virtual Worlds” (2004) 90 *Va L Rev* 2043-2098; Jankowich AE “Property and Democracy in Virtual Worlds” (2005) 11 *BUJ Sci & Tech L* 173-220.

²¹¹ Lastowka FG & Hunter D “The Laws of the Virtual Worlds” (2004) 92 *CLR* 1-74.

²¹² The term “resources” is used interchangeably with “property” and “assets”.

²¹³ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102.

²¹⁴ See for example: Vacca R “Viewing Virtual Property Ownership through the Lens of Innovation” (2008) 76 *Tenn L Rev* 33-64 (argues for the acceptance of virtual property rights, but fails to define them or provide a specific model of implementation); Westbrook TJ “Owned: Finding a Place for Virtual World Property Rights” (2006) 3 *Michigan State LR* 779-812 (argues for the application of the US common law of property to virtual resources, but also fails to indicate what specific rights are created); Meehan M “Virtual Property: Protecting Bits in Context” (2006) XIII *Rich JL & Tech* 1-48 (argues for a conceptualisation of virtual property as ‘bits in context,’ but fails to articulate specific property rights to be applied to the ‘bits’).

issues later in this dissertation and attempt to provide some guidelines on how virtual property could and should be protected.²¹⁵

The following question remains. If virtual property is recognised, how should or could one protect it? One would have to choose between public and private law remedies and while it is already clear that it is increasingly possible to protect virtual property via public criminal law means,²¹⁶ protection via private law means still remains problematical.²¹⁷ This will be addressed in chapters 6 and 7.

4 6 The pitfalls of virtual property

4 6 1 Introduction

On the other side of the debate concerning the justification for recognition of virtual property rights, there are a number of authors who argue that it might not be such a good idea to extend property rights to virtual resources.²¹⁸ Bartle lists five major

²¹⁵ See the discussion about these issues in chapter 7 below.

²¹⁶ See chapter 3 above at 3.5.5.

²¹⁷ See the discussion about the use of private law remedies in chapter 7 below at 7.2.2.

²¹⁸ See for example: Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74; Bartle RA *Pitfalls of Virtual Property* (2004) 1-23; Nelson JW "Fibre Optic Foxes: Virtual Objects and Virtual Worlds through the Lens of Pierson v. Post and the Law of Capture" (2004) 49 *Journal of Technology Law and Policy* 5-28 (argues that virtual objects lack the necessary qualities of property, and therefore property should not be used to regulate those objects); Lawrence DE "It Really Is Just a Game: The Impracticability of Common Law Property Rights in Virtual Property" (2008) 47 *Washburn LJ* 505 (argues against the acceptance of virtual property based upon flaws in the theories of virtual

problem areas that are encountered when dealing with virtual property and the discussions surrounding it.²¹⁹ These areas deal with the meaning or definition of virtual property;²²⁰ responsibility (of developers to players);²²¹ the game conceit (suspension of disbelief);²²² player resentment²²³ and intellectual property.²²⁴ These problems tie into the discussion about the normative justifications for virtual property earlier in this chapter²²⁵ as well as the discussion of the developer's need to control and govern its virtual world in chapter 3.²²⁶ Many of these arguments are similar to the arguments made against the application of the normative theories and due to this it will be efficient to deal with them here. The discussion of these problem areas also

property advocates); Deenihan KE "Leave Those Orcs Alone: Property Rights in Virtual Worlds" 2008 SSRN at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51; Nelson JW "The Virtual Property Problem" 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33. Of these, Bartle argues the case against recognition best in his analysis of the problems associated with virtual property.

²¹⁹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23. See also the discussion of governing a virtual world in chapter 3 above at 3.4.

²²⁰ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 3.

²²¹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 9. Glushko B "Tales of the (Virtual) City: Governing Property Disputes in Virtual Worlds" (2007) 22 *Berkeley Tech LJ* 251-275 at 273.

²²² Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 13; Nelson JW "Fibre Optic Foxes: Virtual Objects and Virtual Worlds through the Lens of *Pierson v. Post* and the Law of Capture" (2004) 49 *Journal of Technology Law and Policy* 5-28 at 13.

²²³ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 17.

²²⁴ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 19.

²²⁵ See 4.4 above.

²²⁶ See chapter 3 above at 3.4.

provides the groundwork for the discussion on the provision of remedies in chapter 7.

4 6 2 Uncertainty

The first pitfall is the uncertainty about the meaning of the concept of virtual property.²²⁷ Bartle illustrates the pitfall as follows:

“Is virtual property a meaningful concept? This may seem an odd question to ask, given that every virtual world has objects and that these objects can belong to individual characters. If one character says to another one, ‘that’s mine!’, any argument that ensues will be about who owns the object in question, not whether objects or ownership themselves are valid concepts.”²²⁸

This is a central part of the problem encountered in the literature that deals with virtual property and one of the reasons why I chose to write this dissertation. Most authors who write about virtual property usually imply that this so-called “virtual property” relates to the (physical) objects in virtual worlds. However, they do not normally discuss it or see it as an issue. This is largely because the bulk of literature dealing with virtual worlds and virtual property are written by academics and lawyers from the USA, coming from an Anglo-American common-law background, where a

²²⁷ The different meanings and approaches to the concept of virtual property are extensively discussed in chapter 5 below.

²²⁸ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 3.

wide approach is followed with regard to the property concept.²²⁹ Mincke says that because it is difficult to get a precise definition of what an object of property is, the question is normally just avoided.²³⁰ A lot of attention was given to the problem of defining what qualifies as objects of property rights in the last century. However, there were many diverging opinions that did not lead to any generally accepted results and “now we simply have stopped asking ...”²³¹

According to Bartle, “within the virtual world itself, property is a meaningful concept, but within the real world it is not meaningful in the same way unless the virtual world explicitly recognizes it.”²³² This can be observed in the virtual world where the player does not own anything, but the player’s avatar owns things. To complicate matters further, neither the player’s avatar nor the player’s account is owned by the player.²³³ In spite of this, players often claim that they own virtual world goods as if those goods were real world things. This claim is illustrated by two

²²⁹ The different approaches to the property concept as well as the scope and content of the objects of virtual property are discussed in more detail in chapter 5 below. See especially the discussion about the differences between the wide and narrow meanings of the property concept.

²³⁰ Mincke W “Objects of Property Rights” in Van Maanen GE & Van der Walt AJ *Property Law on the Threshold of the 21st Century* (1996) 651-668 at 653-654.

²³¹ Mincke W “Objects of Property Rights” in Van Maanen GE & Van der Walt AJ *Property Law on the Threshold of the 21st Century* (1996) 651-668 at 654.

²³² Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 4. The objects of property rights are dealt with in more depth in chapter 5 below.

²³³ Unless the contrary is indicated in the EULA.

attitudes shown by players.²³⁴ The first attitude relates to the idea that something that can be bought and sold in the virtual world is regarded as being identical to what is bought and sold in the real world. For example, if a player buys a virtual sword on eBay, he or she then considers him or herself to own that virtual sword in the real world. The second attitude relates to the idea that trades in virtual objects are really trades in imaginary tokens²³⁵ used by players to represent transfer of the in-world possession of virtual objects. For example, one player advertises that his sword is for sale for \$200, but what he actually means is that if a buyer pays him \$200 in the real world, the seller's avatar will give the sword to the player's avatar in the virtual world. In this case, the players are not concerned with the mechanics of the transaction, as long as it works.²³⁶

There are five arguments that could be used to get a possible answer to the question of how these claims to real world ownership are justified by players.²³⁷ These are that (as player): I own it because I bought it;²³⁸ I own it because I stole

²³⁴ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 4.

²³⁵ Bartle refers to this as "a kind of virtual virtual (sic) object": Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 4.

²³⁶ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 4.

²³⁷ Also see the discussion on justification for virtual property rights in terms of existing property theories earlier in this chapter.

²³⁸ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 5.

it;²³⁹ I own the product of my labour;²⁴⁰ I'm selling my time;²⁴¹ and finally, I own it because you made me buy it.²⁴²

The argument that "I own it because I bought it" revolves around the concept of making a purchase in good faith. However, the argument of making a bona-fide purchase is an empty one, since virtual world developers never²⁴³ sell virtual property; usually take action against those players who try to sell it; and ban the practice of RMT in the EULA.²⁴⁴

The second argument is that "I own it because I stole it." According to this argument, players perceive themselves as having adverse possession of the virtual items. In the virtual world this argument also seems problematical, since developers

²³⁹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 5.

²⁴⁰ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 6.

²⁴¹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 7.

²⁴² Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 7.

²⁴³ This is not always true, since developers regularly sell virtual items or currency to avatars. However, in terms of the EULA this will form part of the gameplay and be limited to the inside of the virtual world. Consequently, the sale will not lead to the creation of any right or legal obligation in the real world, except for the personal obligations that the developer has in terms of contract law to give satisfaction to the contractual terms of the sale.

²⁴⁴ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 5. For a general discussion of how developers deal with RMT see Yoon U "Real Money Trading in MMORPG Items from a Legal and Policy Perspective" 2004 *SSRN* at <http://ssrn.com/abstract=1113327> (05 Nov 2009) 1-59; Yoon U "South Korea and Indirect Reliance on IP Law: Real Money Trading in MMORPG Items" (2008) 3 *JIPLP* 174-179.

argue that players could not acquire rights through adverse possession because they pay the developer a monthly fee that equals rent.²⁴⁵

The third argument is that “I own the product of my labour” and is based on the Lockean labour theory.²⁴⁶ Bartle counters this argument and compares the creative endeavours of players in virtual worlds to playing with the Lego or play dough that belongs to someone else. Even though the player is exerting an effort to create something with the Lego, he or she does not get to keep it. Bartle argues that “people are being invited not to ‘make things’ but to ‘make things for fun’, it is not work, it’s play. If you start regarding it as work, you’re breaking the implicit conditions under which you were given access to the necessary materials.”²⁴⁷ In virtual worlds these conditions are contained in the EULA.

The fourth argument is that “I’m selling my time.” This is the argument used by the Black Snow company who employed people to do gold-farming.²⁴⁸ They contended that they were not selling the virtual objects, but rather the “time and

²⁴⁵ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 5. This ties into the idea that a player is able to acquire ownership in virtual property objects due to some form of original acquisition such as accession or mixture. See the discussion about acquisition of virtual property in chapter 6 below at 6.3.5. This example of a monthly subscription fee equating to the payment of rent is not totally applicable since it is only in civil law where the payment of rent equals the recognition of the owner’s right of ownership. However, in English law, adverse possession only requires *animus possessionis* from the lessee.

²⁴⁶ See the discussion about the application of Locke’s theory earlier in this chapter at 4.4.2.

²⁴⁷ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 6.

²⁴⁸ This case is discussed in more depth in chapter 5 below at 5.3.3.5.

effort” that they put into the acquisition of the virtual goods. Bartle compares this argument to an argument that someone is not selling counterfeit coins, but rather the time and effort put into obtaining them.²⁴⁹ Although the time and effort argument might sometimes be a factor in an argument, it should not be the only factors to take into consideration.

The fifth and final argument is that “I own it because you made me buy it.” This turns the accountability back to the developer, arguing that although the developer is saying one thing in the EULA, it is saying another by its deeds.²⁵⁰ The best example of this is where a virtual world is designed in such a way as to actively encourage players to buy and sell virtual goods in the real world.²⁵¹ This is an argument that revolves around the question whether it would be fair to treat “time-rich” and “time-poor” players equally by not allowing the sale of virtual goods.²⁵² Bartle describes it in the following way:

²⁴⁹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 7.

²⁵⁰ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 7.

²⁵¹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 7.

²⁵² For more information about this concept see in general: Lindskog H “Time-rich and Time-poor-Beyond the Digital Divide” 2002 *heldag.com* at <http://www.heldag.com/articles/ISOneWorld%202002.doc> (20 Dec 2011) 1-15; Bonke J, Deding M & Lausten M “Time and Money – Are They Substitutes?” 2004 *International Association for Research in Income and Wealth* at <http://www.iariw.org/papers/2004/bonke.pdf> (20 Dec 2011) 1-30; Bonke J, Deding M & Lausten M “Time and Money – Substitutes in Real Terms and Complements in Satisfaction” 2006 *The Levy Institute Working Paper No 451* at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=904658&download=yes (20 Dec 2011) 1-28.

“Here, the player is painted as a hapless victim of circumstances - an honest individual subjected to unreasonable pressures to do things they don't want to do. The almost exquisite highlight of this argument is that virtual worlds are designed to favour “time-rich people” (i.e. ones who can spend hours every day playing them) and that this is unfair for “time-poor people” (i.e. ones who have to work during the day, making them relatively cash-rich). Surely players who are time-poor but cash-rich should be able to counteract the excessive advantage that time-rich players have? It's inequitable otherwise.”²⁵³

To counter this argument, Bartle applies the example of someone who is time-rich and can therefore get an MBA, while cash-rich people cannot. If the first argument above is followed, then someone could just buy an MBA degree without doing the work. The same goes for the virtual world, where not every person is capable of reaching the top levels, even if they had the time to play. Why then should he or she be allowed to buy the status of having reached the top levels?

Bartle summarises the position as follows:

“What it comes down to is that unless the developers say otherwise, players are paying to manipulate bits in a database, not for the rights to own any data their manipulations affect. They may legitimately say that certain emergent properties of those bits are ‘theirs’, but that doesn't

²⁵³ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 7. However, this argument is not universally accepted by players and in fact leads to one of the most contentious points between players. Many players will argue the opposite, i.e. that players who do not spend the time and effort to progress in the game should not be allowed to take a “short-cut” by buying their way to a better virtual world status. If a player is allowed to do this, the virtual world as a whole suffers, since a player's dedication and achievements cannot be taken at face value. See Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 27.

mean they own them. You can rent a house, redecorate it with the full permission of the owner, live in it for five years, fill the garden full of flowers, insulate the loft, do a whole bunch of other things, but you don't get to sell it. It's not yours to sell.”²⁵⁴

4 6 3 Responsibility

The second pitfall relates to responsibility.²⁵⁵ If the concept of virtual property is accepted, the developer becomes a custodian rather than an owner of virtual property and as such, acquires certain responsibilities. The most important responsibility will be the obligation to ensure that virtual property retains its value.²⁵⁶

Bartle provides the example of a player deciding to buy a unique and rare item. In this case it's called the “Sword of Truth”.²⁵⁷ When the player decides to buy the sword, it is the most sought after and most powerful weapon available in a particular virtual world. Because of this, the player perceives it as valuable and is willing to pay a premium for its acquisition but, for some reason, the position regarding the unique

²⁵⁴ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 8.

²⁵⁵ See the discussion about the need for a developer to have control over a virtual world in chapter 3 above at 3.4.

²⁵⁶ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 9. Bartle uses “value” in this sense as “coming from the effects of many subtle interactions of human desire.” As such, it would include both financially and sentimentally valuable objects. See also Lawrence DE “It Really is Just a Game: The Impracticability of Common Law Property Rights in Virtual Property” (2008) 47 *Washburn LJ* 505-549 at 521.

²⁵⁷ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 9.

character of the sword changes the very next day. This could be by design,²⁵⁸ if the developer wants to devalue certain objects in the virtual world's economy.²⁵⁹ It could also be due to a bug in the game-code or due to the system being patched. Because of this change, there are now ten thousand swords of truth in the game. Suddenly the player's investment is pointless and he would have no way to recoup his investment. Should the developer be held responsible for the player's loss?²⁶⁰ Apart from the scenario above, another issue that arises in virtual worlds relates to the fact that everything in a virtual world is intertwined and interdependent on all other things.²⁶¹ If the characteristics of one object are changed, it could affect the characteristics of other objects in unpredictable ways.²⁶² If a developer was bound to

²⁵⁸ See the discussion about the need for developers to have control over virtual worlds in chapter 3.

²⁵⁹ One example of where this may happen is when "nerfing" occurs. Nerfing relates to the practice where developers reduce the value or capabilities of certain virtual world objects for some or other (usually rational) reason such as sustaining the in-game economy. In such a case a player's virtual property rights may be affected. Other examples include the practice of resetting a virtual world to an earlier state in time where players may lose property and skills, the banning of a player from participating in the virtual world, the termination of his account or the most extreme case of shutting down the virtual world. In all of these examples a player may lose some or all of their virtual property. See Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 738; Lawrence DE "It Really is Just a Game: The Impracticability of Common Law Property Rights in Virtual Property" (2008) 47 *Washburn LJ* 505-549 at 521.

²⁶⁰ This issue is addressed in chapter 7 below at 7.2 when the issues relating to remedies are dealt with.

²⁶¹ See the discussion about the interconnected nature of virtual worlds in chapter 2 above at 2.4.5.

²⁶² Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 10. Bartle gives this example: "Adjusting the way that a monster's shaggy coat absorbs slashes from edged weapons will, like it or not, affect the

always retain the *status quo*, virtual worlds would not evolve and game patches could not be introduced.²⁶³ A counterargument could also be made. If a developer does not patch a system because he or she is forced to maintain the *status quo* with regard to the in-world value of one player's object and this leads to the deterioration of the effectiveness of gameplay in the virtual world for other players, it would be regarded as irresponsible towards all the other players.²⁶⁴

In practice, players generally accept that virtual worlds need to evolve and that a developer needs to manipulate a virtual world to keep things running smoothly.²⁶⁵ Reasonable changes that do not affect property values unduly and maliciously (or arbitrarily),²⁶⁶ should be tolerated by players. But what will be considered as reasonable changes? Bartle discusses the example of a virtual world that is shut

usefulness or otherwise of a longsword; making marsh gas acidic will limit the effectiveness of metal armour; teleportation portals render ferries and bridges obsolete.”

²⁶³ See the discussion in chapter 3 above at 3.4 about the need for developers to exercise power and control in this regard.

²⁶⁴ This capability of the developer to take action mirrors the capability of the state in the real world where the state can take certain actions (create regulations) that will affect the value of property; and only some of these actions will require compensation. This can affect the choice of remedy or the choice for market-inalienable property, but not the question whether property must be recognised.

²⁶⁵ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 11; Lawrence DE “It Really is Just a Game: The Impracticability of Common Law Property Rights in Virtual Property” (2008) 47 *Washburn LJ* 505-549 at 521.

²⁶⁶ If one was to apply the test for constitutional protection of property as contained in s 25(1) of the Constitution of the Republic of South Africa 1996. See the discussion about constitutional protection of virtual property below in chapter 5 at 5.2.2.

down.²⁶⁷ In this case, what is the developer's responsibility if a player loses the money from an investment when a virtual world is shut down? Bartle differentiates between virtual worlds where the developer does not partake in the selling of virtual items for real money and the ones where the developer does.²⁶⁸ If a developer does not condone or take part in the real selling of virtual objects for real money, it should not be liable for a player's losses when the world is shut down. However, if the virtual world actively engages in the sale of virtual objects, the player should at the very least have some recourse to compensation for her loss.²⁶⁹ The player should also be

²⁶⁷ See also the discussion of the shutting down of *The Sims Online* in chapter 2 above at 2.2.3.

²⁶⁸ This issue is addressed in chapter 7 below where a differentiation is made between protecting virtual property rights when the virtual world is operated for profit and not protecting or recognising such rights if the virtual world is not operated for profit.

²⁶⁹ Compare this to the discussion of the personhood theory above. In terms of the personhood theory one can argue that the interplay between the rights of the developer and player should be determined by the level of personal connection to the virtual property. In the example above, the developer who interferes with the property of players for the good of the world itself or for the sake of all the players should be considered to *not* have a purely fungible interest in the property and the players' (arguably) personal rights will not be upheld to the detriment of the developer and the rest of the world. Only in the circumstance where the developer's rights to the property are clearly fungible will the player's rights trump those of the developer. An example of such a case would be when a developer infringes on the player's rights purely for the sake of personal gain. This is once again analogous to the rent-control example discussed earlier. See also Boone MS "Virtual Property and Personhood" (2008) 24 *Santa Clara Computer & High Tech LJ* 715-747 at 739-740; Lawrence DE "It Really is Just a Game: The Impracticability of Common Law Property Rights in Virtual Property" (2008) 47 *Washburn LJ* 505-549 at 543. The issue here is not just about the distinction of personal vs fungible interests. It is also connected to the police-power principle and affects the choice of available remedy when property values are affected. It does not affect the question of whether there is property at all.

protected under regular consumer protection laws²⁷⁰ due to the fact that at the very least there is a generally recognised contractual relationship between the player and developer.

4 6 4 *The game conceit*

The third pitfall relates to what Bartle calls “the game conceit”.²⁷¹ This in effect translates to the requirement that players need to have a “suspension of disbelief”. Players need to decide consciously not to disbelieve the fictional nature of the virtual world. Bartle describes the game conceit as follows:

“Virtual worlds aren’t games, but almost all of them use the same conceit: the players agree to ‘give up some of their real-world freedoms (*i.e.* to play by the rules) in order to gain new freedoms and benefits (*e.g.* have fun). In Ludology,²⁷² this is known as the *magic circle*; players who break the magic circle are branded as spoilsports whom people think twice

²⁷⁰ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 13; Balkin JM “Virtual Liberty: Freedom to Design and Freedom to Play in Virtual Worlds” (2004) 90 *Va L Rev* 2043-2098 at 2042. See in general: Lehdonvirta V, Wilska T & Johnson M “Virtual Consumerism: Case Habbo Hotel” (2009) 12 *Information, Communication & Society* 1059-1079. However, see Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1088 for a counter-argument.

²⁷¹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 13. The game-conceit is also sometimes referred to as the “magic circle” or the “fourth wall”. See Camp B “The Play’s the Thing: A Theory of Taxing Virtual Worlds” (2007) 59 *Hastings LJ* 1-72 at 60; Lastowka FG & Hunter D “Virtual Crime” 2004 SSRN at <http://ssrn.com/abstract=564801> (22 May 2009) 1-26 at 14.

²⁷² This is also known as game-studies.

about playing with in the future.’ This follows the same argument as the one made above about players who are time-rich or cash-rich.”²⁷³

Players who are time-poor but cash rich do not play by the rules of the game since they are breaking the suspension of disbelief by not following the rules. Because they are “cheating” to gain status in the virtual world, other players struggle to maintain the illusion that someone who is “a level 40 mage” is indeed really deserving of that title.²⁷⁴

4 6 5 Player resentment

The fourth pitfall is that of player resentment. This happens when players are forced to buy virtual goods for some reason or another. This resentment manifests itself in various forms, of which the following are the most prominent.²⁷⁵ Commodification²⁷⁶

²⁷³ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 13 (footnotes omitted).

²⁷⁴ Bartle describes it as follows: “You’re taking an unfair short-cut and cheapening the successes of people who don’t take it. What’s the point of their working up to level 50 if everyone who sees them thinks they bought at least some of those levels with real-world dollars? The status of the character should reflect the status of the player behind it”: Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 15. See also Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 27.

²⁷⁵ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 17; Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 26.

²⁷⁶ See in general: Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1099; Lawrence DE “It Really is Just a Game: The Impracticability of Common Law Property Rights in Virtual Property”

in the virtual world creates resentment that is firstly directed towards other players who monopolise certain resources for themselves and force other players to buy those resources from them.²⁷⁷ If a developer does not address this issue the resentment of players will be directed towards itself. A second reason is that it is easy to be defrauded by other players who are selling virtual goods.²⁷⁸ A buyer is often not assured that a seller will deliver the goods, since the transaction takes place outside of the controlled environment of the virtual world. The third reason is that players sometimes can feel resentment about the commodification aspect when they cannot afford the prices of the virtual goods on sale.²⁷⁹ In other words, they are unable to acquire the goods in the normal system of gameplay and are forced either to buy the items from monopolising players or to make do without it. This ties into the pitfall of game-deceit above.

(2008) 47 *Washburn LJ* 505-549 at 526; Fairfield JAT "Anti-Social Contracts: The Contractual Governance of Virtual Worlds" (2008) 53 *McGill LJ* 427-476 at 435.

²⁷⁷ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 17; Deenihan KE "Leave Those Orcs Alone: Property Rights in Virtual Worlds" 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 27.

²⁷⁸ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 19.

²⁷⁹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 19.

4 6 6 Intellectual property

The fifth pitfall concerns the problem of identifying the owner of copyright in virtual objects. The problem is that the law is not clear on the subject.²⁸⁰ While most developers traditionally claim all intellectual property (IP) in the objects inside of their virtual worlds, some²⁸¹ do (purport to) cede some IP rights to players. Amongst various other problems,²⁸² a commodifier²⁸³ cannot legally sell what he or she does not own. This was, and still is, one of the best arguments that developers can use to stop the sale of virtual items. For example, it is due to this argument that Sony could persuade eBay to stop listing *EverQuest* character sales on its website.²⁸⁴ The problem with this argument is that by making it, developers are in principle agreeing with commodifiers that copyright is capable of existing in virtual objects and

²⁸⁰ See in general Boonk M & Lodder AR “Virtual Worlds: Yet another Challenge to Intellectual Property Law” 2007 *SSRN* at <http://ssrn.com/abstract=1079970> 1-9 at 1-2; Adrian A “Intellectual Property or Intangible Chattel?” (2006) 1 *JICLT* at <http://www.jiclt.com/index.php/JICLT/article/viewArticle/21> (30 Mar 2012) 52–61 at 1-2; Chheda T “Intellectual Property Implications in a Virtual Reality Environment” (2005) 4 *J Marshall Rev Intell Prop L* 483-508.

²⁸¹ Most notably *Second Life*.

²⁸² See Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 20-21.

²⁸³ A commodifier is a person who takes virtual interests and sells them as commodities.

²⁸⁴ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 21. See also: Sandoval G “Sony to Ban Sale of Online Characters from its Popular Gaming Sites” 2000 *CNET News* at http://news.cnet.com/2100-1017_3-239052.html (19 Dec 2011); Sandoval G “eBay, Yahoo Crack Down on Fantasy Sales” 2001 *CNET News* at <http://news.cnet.com/2100-1017-251654.html> (19 Dec 2011); Terdiman D “eBay Bans Auctions of Virtual Goods” 2007 *CNET News.com* at http://www.news.com/2102-1043_3-6154372.html (12 March 2008).

characters, independent of the virtual world.²⁸⁵ Various legal problems arise when dealing with intellectual property in independent virtual property objects. Some of the most prominent ones are the following.²⁸⁶ Even if a developer states in the EULA that it acquires all IP rights in virtual objects inside its virtual world, there are legal limitations imposed on this claim.²⁸⁷ Firstly, minors are generally prohibited by law from signing away their IP. Secondly, article 6bis of the Berne Convention²⁸⁸ gives moral rights to authors (as content creators) and if a country is a signatory, its citizens will enjoy this protection. Thirdly, many countries have very strict laws against unfair contracts and protect consumers from one-sided contracts even if the contract was voluntarily entered into.²⁸⁹ Another problem relates to the uncertainty about the applicability of copyright to virtual property. IP law in general does not give a clear indication of whether and how it applies to virtual property. Bartle argues that virtual property does not fall into a clear category such as software or databases. He states that rather than being regarded as software, virtual property is the result of the execution of software. Virtual property is not a database, but rather just entries in

²⁸⁵ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 22.

²⁸⁶ Also see the discussion in chapter 3 above at 3.4 where these issues are dealt with.

²⁸⁷ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 21. Also see the discussion in chapter 3 above at 3.4.

²⁸⁸ World Intellectual Property Organisation *Berne Convention for the Protection of Literary and Artistic Works* (1886).

²⁸⁹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 21. See for example the South African Consumer Protection Act 68 of 2008.

databases.²⁹⁰ The identity of the author is not clear either. Is the author the person who wrote the program code of the virtual world or the person who used the supplied in-world program code to create new items or things?²⁹¹

4 6 7 Conclusion

According to Bartle, the existence of virtual property as a practical phenomenon has two major side effects.²⁹² These are that real world property laws are activated (applied to the virtual world) and that the consequence of this is that it stops the game from being “just a game”. All of the problems discussed above originate from the fact that different groups of people who participate in virtual worlds want different things from the virtual worlds and not all of these wants are compatible with each other.²⁹³ The biggest of the pitfalls is the uncertainty of the status of virtual property in law. This is due to the concept being so new and the distinct lack of precedent in law as well as practice. This creates uncertainty for all parties involved with virtual property.²⁹⁴ Bartle’s discussion centres on a virtual world like *WoW* that is designed

²⁹⁰ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 22.

²⁹¹ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 22; Adrian A “Intellectual Property or Intangible Chattel?” (2006) 1 *JICLT* at <http://www.jiclt.com/index.php/JICLT/article/viewArticle/21> (30 Mar 2012) 52–61 at 53-56.

²⁹² Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 9.

²⁹³ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 23.

²⁹⁴ Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 23. Six years later (in 2010) the position is not much improved and the only real precedent that is starting to be created is that courts are willing to

to be “just a game”. Almost none of these arguments would be applicable to a virtual world that actively sells virtual real estate and focuses on benefitting financially from the commodification of virtual property.²⁹⁵ The analysis of the pitfalls of virtual property ties into the discussion of the remedies in chapter 7. This analysis created the background and raised a number of extremely important issues that one needs to keep in mind when deciding if, how and when virtual property should be protected.

4 7 Conclusion

In this chapter, the questions of whether virtual property should be recognised and the subsequent problems that relate to this issue were discussed. The question of why a property lawyer should take notice of virtual worlds was answered by investigating the substantial number of participants who spend their time, energy and money in these worlds. The economic importance of virtual worlds was explored and it transpired that the massive commercial side of virtual worlds underscores the real world importance of these worlds. Virtual worlds show a steep growth rate and because their economies are mixed together with a continually increasing subscriber base, this can only mean that it will continue to be a force of note. The legal implications of this would be that such a large economy would invariably result in the

protect virtual property from theft in the real world. See the discussion of case law below in chapter 3 above at 3.5.

²⁹⁵ This would be typical of a socially based virtual world such as *Second Life*.

creation of property interests in a similar way to the creation of property interests that stem from the development of large economies in the real world. From this it is clear that players do indeed have financial interests in their virtual property. From the examples that were discussed it became clear that it is only a matter of time before governments all over the world start to sit up and take notice of the income tax or estate duties implications of the virtual worlds. It is also clear that from this volume of economic investment and the regulation thereof that there will invariably be property interests and principles that apply to the virtual world environment. The question was raised if the mere fact that players do have economic interests are sufficient to argue for protection of these interests by property rules. This question was addressed in the following sections of the chapter and answered in the affirmative. The question was also raised whether strengthened protection of already existing personal (contractual) rights would not be sufficient to protect these economic interests. The answer to this question will emerge from further investigation in the rest of this dissertation.

The argument was also made that virtual worlds are deserving of serious academic attention because their use constitutes an important new societal development that continues to evolve aggressively. To underline this, the addictive nature of virtual worlds showed the dark side of the virtual world phenomenon, although this only helps to strengthen the argument of the importance of virtual worlds in today's society. Virtual worlds offer many people a safe and possibly utopian escape from the harsh reality of their current real world environment. There are real equal opportunities for everyone in online worlds and the only prejudices

experienced by players are due to choices made by the players themselves. For that reason alone, it is commendable as an escape from the drudgery and problems of the real world.

Three normative theories were discussed in order to answer the question of whether it can be justified to protect virtual property interests (especially via property rules). The first normative justification was made in terms of the Lockean labour theory. The second normative justification was made in terms of utilitarian justifications, while the third normative justification was made in terms of Radin's personhood theory. While each of the justifications was analysed it is clear that no single one can be applied as a proper justification without recognising that certain elements of each will have to be adapted and updated to be applied properly to virtual property. The theories could and should be adapted and developed to deal more effectively with the modern requirements of a constantly changing society and legal landscape. This should not pose a problem and collectively the three theories do indeed seem to justify that virtual property should be protectable in some instances in terms of real world property rules. These instances and a nuanced approach to how their application will suffice to give virtual property real world property protection will be discussed in more detail in chapter 6.

Some of the problems regarding the recognition and enforcement of virtual property rights as well as the so-called pitfalls of virtual property that refer to a number of arguments for and against the recognition of virtual world property were analysed subsequently. It became clear from the various opinions discussed above that there are good reasons to recognise virtual property, but with the caveat that

one should take particular care not to lose sight of the gaming and entertainment aspects of virtual worlds. Especially in instances where virtual property is created, used and maintained solely for entertainment purposes, one should be loath to regulate virtual property by means of the real world legal system. However, as soon as there is a measurable interaction between the real and virtual worlds and virtual property is having an effect in the real world, it is clear that it is inevitable that virtual property should be recognised in the real world.

This leads to the next chapter that deals with the virtual property concept where virtual property will be compared to and analysed in terms of traditional property doctrine. The question is asked whether it would be possible to recognise and protect virtual property by applying real world legal doctrine, classification and characterisation of property. The meaning of virtual property as it is understood from both a narrow and wide definition will be addressed. The characteristics of virtual property (wide), virtual things (narrow) and the classification of virtual things (according to both nature and relationship) will also be discussed.

Chapter 5: The Virtual Property Concept

5 1 Introduction

This chapter deals with the recognition and possible protection of virtual property by investigating if and how one can apply real world legal doctrine, classification and characterisation of property to the virtual world. To do this, I divide the chapter into two parts. In the first part I deal with the real world concept of property and try to determine what “property” means by looking at the narrow and wide approaches to the property concept in the Anglo-American and Roman-Germanic legal traditions as well as how it is dealt with in constitutional property. I also discuss the problem that is encountered with the real world classification of a thing as being only applicable to corporeal or tangible objects. To illustrate how things are doctrinally dealt with in the real world and to enable comparison to virtual things in the following section, I move on to the characteristics of things and to the classification of things in the real world.

In the second part of the chapter, I cover similar ground to that of the first, but from the perspective of virtual property. I discuss some of the problems that are encountered when dealing with the concept of virtual property and various ways in which one can solve these issues. I then deal with the different levels where one can perceive property and according to which the property concept will change contextually. This is followed by a brief discussion of why virtual property should be seen as being discrete from intellectual property. The problem of dealing with “virtual property” as a tangible-intangible is addressed in the following section, dealing with the crossing of the conceptual barrier. After discussing the subjects and objects of

virtual property, I look at the characteristics of virtual property as they have been identified in the literature, with a specific Anglo-American focus that draws an analogy between real world and virtual world property. This is followed by the application of the characteristics and classification of real world things to virtual things. This is done to determine whether virtual things can be classified in the same way as real world things.

This chapter is primarily about recognition. If one accepts the results of the previous chapter that virtual property should be protected, can it be done in real world legal systems that tend to focus on tangible property, and how?

5 2 The real world concept of property

5 2 1 Introduction

The problem with the concept of property is that everyone has different views on what it means.¹ There are interpretations of the concept where it is approached from

¹ See in general: Cribbet JE et al *Property: Cases and Materials* (8th ed 2002) 2; Nelson GS, Stoebuck WB & Whitman DA *Contemporary Property* (1996) 2-5; Gray K "Property in Thin Air" (1991) 50 *CLJ* 252-307 at 292-295; Mostert H & Pope A (eds) *The Principles of the Law of Property in South Africa* (2010) 4-5; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 1; Cribbet JE et al *Property: Cases and Materials* (8th ed 2002) 2-3; Gray K & Gray SF *Elements of Land Law* (5th ed 2009) 86-90; Nelson GS, Pitlo A, Reehuis WHM & Heisterkamp AHT *Goederenrecht: Deel 3 van Het Nederlands Burgerlijk Recht* (12th ed 2006) 1-4, 18; Wilhelm J *Sachenrecht* (2nd ed 2002) 1-4, 38-42; Wieling HJ *Sachenrecht* (5th ed 2007) 3-5; Thompson MP *Modern Land Law* (4th ed 2009) 1, 5-10.

an economic, legal or lay perspective and there are context-sensitive interpretations where the content of the property concept will vary depending on the context in which it is used. To complicate matters further, one finds that there is no real consensus about the property concept, even in a specific field of expertise. As such, the legal meaning and understanding of “property” varies widely from jurisdiction to jurisdiction as well as from a public, private or constitutional law approach. This can be seen from the varying descriptive terms allocated to the definitions of “property” as well as the different interpretations of the property concept as being either wide or narrow.² In the next section, I discuss these approaches to property in order to determine if one can compare the real world property concept to the virtual world one.

5 2 2 Different approaches to property: private and constitutional

5 2 2 1 Introduction

The term “property” has different meanings in Anglo-American and in Roman-Germanic legal systems and also has different meanings in the latter, depending on whether the term is used in the private or public law context and, in private law, whether it refers to rights or objects.³ In other words, there are different approaches

² See the discussion about the difference between the narrow and wide approaches below.

³ See in general Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 1; Cribbet JE et al *Property: Cases and Materials* (8th ed 2002) 2-3; Gray K &

to the content given to the term “property” in these systems with the crucial issue being whether one considers the definition of property in private law or constitutional law, and whether one is talking about the Roman-Germanic civil law or the Anglo-American common law tradition.

In ordinary language usage and in the Anglo-American systems, the term “property” refers to a wider⁴ variety of assets⁵ than in Roman-Germanic systems. These assets can make up a person’s patrimony and serve as the objects of the rights⁶ that a person exercises in respect of those assets.⁷ It also refers to assets that are constitutionally protected.⁸ In Roman-Germanic and South African law, these assets usually relate to tangible and perceptible objects, but intangible assets

Gray SF *Elements of Land Law* (5th ed 2009) 86-90; Nelson GS, Stoebuck WB & Whitman DA *Contemporary Property* (1996) 2-5; Pitlo A, Reehuis WHM & Heisterkamp AHT *Goederenrecht:Deel 3 van Het Nederlands Burgerlijk Recht* (12th ed 2006) 1-4, 18; Wilhelm J *Sachenrecht* (2nd ed 2002) 1-4, 38-42; Wieling HJ *Sachenrecht* (5th ed 2007) 3-5; Thompson MP *Modern Land Law* (4th ed 2009) 1, 5-10; Mostert H & Pope A (eds) *The Principles of the Law of Property in South Africa* (2010) 5; Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 85-86.

⁴ This “wide” definition of property does not focus on the tangibility of property and includes a wide range of interests in property. This is in contrast to the “narrow” definition of property that focuses on the characteristic of the tangibility of an object.

⁵ See Van der Walt AJ *Constitutional Property Law* (2005) 82.

⁶ Examples of such patrimonial objects are things, immaterial property and performances.

⁷ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 1.

⁸ See generally Mincke W “Objects of Property Rights” in Van Maanen GE & Van der Walt AJ *Property Law on the Threshold of the 21st Century* (1996) 652-653.

are sometimes also included in this concept of property.⁹ In Anglo American law, not much attention is paid to objects and the focus is on rights to property.¹⁰

An important aspect of the difference between the concept of property in private law and constitutional law derives from the divergent reasons for recognition given to each. Recognition of property in private law differs from recognition in constitutional law since the purpose of recognition in private law is to enforce protection against other private actors, while the purpose in constitutional law is to enforce protection against state interventions.

5 2 2 2 Anglo-American tradition

In Anglo-American private law property is usually defined very widely.¹¹ Property is defined as consisting of a "... bundle of rights or expectations in a tangible or intangible thing that are enforced against third parties, including the government."¹² These rights include, amongst others, the rights to use, possess, exclude and alienate things. "Things" are also defined widely and include interests in land,

⁹ Examples are creditor's rights or intellectual property rights, amongst others. See Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 25.

¹⁰ Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 114-115.

¹¹ Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 114-115.

¹² Nelson GS, Stoebuck WB & Whitman DA *Contemporary Property* (1996) 5.

chattels and intangibles.¹³ American and Commonwealth constitutional law acknowledges a wide range of objects that are regarded as property.¹⁴ The most important aspect of property in the Anglo-American common law tradition is that property is always defined widely. Therefore, there is no difference between private law and constitutional law, and the term “property” is basically always used to refer to the rights with regard to property and no attention is paid to objects of property.¹⁵

¹³ In Anglo-American law property in land is generally referred to as real property, real estate and realty, and is comparable with immovable property in the civil law tradition. By comparison, Anglo-American law classifies property in chattels and intangibles as personal property or personalty, as opposed to the civil law counterpart of movable property or movables. See Nelson GS, Stoebuck WB & Whitman DA *Contemporary Property* (1996) 5; Cribbet JE et al *Property: Cases and Materials* (8th ed 2002) 38; Thompson MP *Modern Land Law* (4th ed 2009) 5; Raushenbush WB *Brown on Personal Property* (3rd ed 1975) 9-12.

¹⁴ Examples are personal and creditor’s rights, intellectual property interests, other commercial interests (right of access to an island; confidential industrial information; claim to a bank account) and certain social or welfare interests (also referred to as “new property” which include participatory claims against state welfare and social benefits). See Van der Walt AJ *Constitutional Property Law* (2005) 83 and fns 81, 82; Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 7; 324-325; Currie I & De Waal J *The Bill of Rights Handbook* (5th ed 2005) 539.

¹⁵ Although objects sometimes play a background role in Anglo-American property law, that role is irrelevant to this discussion.

5 2 2 3 Roman-Germanic tradition

5 2 2 3 1 Private law

When the term “property” is used in private law, it normally has two broad meanings.¹⁶ It can either refer to the right¹⁷ to a legal object or the object¹⁸ to which the right relates. Real rights have things as their objects, but not all rights relating to things are real rights. The rights to performances are called personal rights and the rights to immaterial property are called immaterial property rights.¹⁹ Certain statutory rights may be granted by the legislature for the benefit of one party to a contract and are enforceable against the other party and often also against everyone else.²⁰ This has the effect of giving these statutory rights property like protection. Examples of

¹⁶ See Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 1 and 9.

¹⁷ Property (or patrimonial) rights include the following: real rights, personal rights, immaterial property rights, real rights to other patrimonial objects, statutory personal rights created in contracts; and statutory rights against the state to certain resources or performances. See Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 44.

¹⁸ As the object of property rights, “property” can also assume various forms. Objects of property rights can be listed as: things, immaterial property, performances and patrimonial rights (real rights, personal rights and immaterial property rights) serving as the object of limited real rights. Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 44.

¹⁹ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 9.

²⁰ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 10.

such rights are the statutory rights that protect the interests of consumers or serve to balance unequal bargaining positions between parties to a contract.²¹

In civil law, the focus with regard to property is usually on the objects of property rather than on the rights themselves. This is evidenced by the fact that a very important distinction with regard to the property concept in Roman-Germanic law is the distinction between property in general and things. When the term “property” is used, it includes “any asset with monetary value in an estate or patrimony.”²² It includes both corporeal objects (like cars) and incorporeal objects (like personal rights or shares in a company) in the wide definition.²³ In other words, the law of property is seen as encompassing more than the law of things. It includes, amongst others, the following areas of law: the law of things; the law of succession and the law of immaterial or industrial property.²⁴ By comparison, the term “thing” is more narrowly defined and limited in its scope of application and in a juridical sense the

²¹ It is possible that one of the best methods to protect virtual property will be for the legislature to create such statutory rights that specifically aim to protect the interests of players in virtual worlds. Not only will this help to level the unequal playing field that developers have created by making use of EULAs, but might also be one of the easiest ways to bypass all the theoretical and doctrinal objections towards the recognition of virtual property under the existing doctrinal dispensation. It would be a good idea to do this by means of consumer protection legislation.

²² Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 409.

²³ For example in *Cooper v Boyes NO and Another* 1994 (4) SA 521 (C) shares were regarded as incorporeal movable property over which a usufruct can be established.

²⁴ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 5.

term “thing” is taken to refer only to corporeal objects.²⁵ The use of the term “thing” does not create confusion between a right and its object, because it only refers to the object of a right.²⁶

In the Roman-Germanic (and South African) private law tradition Property Law is often referred to (and restrictively interpreted) as “the law of things”.²⁷ This narrow definition²⁸ revolves around the characteristic of corporeality and it is generally said (although not universally accepted) that due to doctrinal and systematic reasons it is better to use the “law of things” to describe the branch of property law that deals with the rights in respect of corporeal things.²⁹ From a historical perspective, in a traditional property law system like the South African law of things, the focus area and subjects dealt with were limited to perceptible or tangible items. More

²⁵ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 5. This is not always true and sometimes the term “thing” is used to denote both corporeal and incorporeal things. See the discussion about corporeality below at 5.2.3.1.

²⁶ Du Bois F (ed) Wille’s Principles of South African Law (9th ed 2007) 409.

²⁷ As Van der Walt notes, this is reflected in two significant examples of South African private law textbooks: Erasmus HJ, Van der Merwe CG & Van Wyk AH *Lee & Honoré: Family, Things and Succession* (2nd ed 1983) and Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993). Van der Merwe CG *Sakereg* (2nd ed 1989) is the most authoritative Afrikaans language textbook on private law property and if translated into English would probably be published as the *Law of Things*. See Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 2, 4 for an equally authoritative English language textbook that takes a different and wider approach. See Van der Walt AJ *Constitutional Property Law* (2005) 78 fn 62.

²⁸ Narrow, as opposed to the “wide” definition in Anglo-American traditions that do not focus on the tangibility of property.

²⁹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 5; Currie I & De Waal J *The Bill of Rights Handbook* (5th ed 2005) 538.

specifically, it only dealt with things that were inside commerce or could be bought and sold on the market (*res in commercio*). A thing was classified in the South African (private) property law as having the following characteristics: corporeality, impersonal nature, external to a person, independent existence, susceptibility to human control, and it must be of use and value to man.³⁰

This narrow approach has recently been criticized and some authors and courts now seem to work with a wider concept of property.³¹ In certain instances the objects of property rights may include other patrimonial objects like immaterial property and performances.³² Sometimes patrimonial rights can serve the function of patrimonial objects by being the objects of other rights and in this regard, the common law recognises that incorporeal things can exist.³³ Cloete also provides a differing view in his LLD dissertation and illustrates how the prevailing notions of society can influence this restriction of corporeality.³⁴ He extensively analyses the history and the (in)correctness of the assertion that only a narrow thing concept (that accepts only

³⁰ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 14.

³¹ See Kleyn DG & Boraine A *Silberberg & Schoeman: The Law of Property* (3rd ed 1992) 9; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 2, 4, 13; Van der Walt AJ *Constitutional Property Law* (2005) 78 fn 64; Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 5; 318-319.

³² Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 12.

³³ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 12; Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 115.

³⁴ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) viii (for English summary).

corporeal things) is accepted in South African private law. He attributes this preference for a narrow approach to the thing concept as a specific interpretation of the doctrine of private law (subjective) rights that occurred in the 1950's.³⁵ This interpretation is attributed to the reception of the Pandectist theory in South African private law by authors such as WA Joubert and CG Van der Merwe.³⁶ Accordingly, after the reception of the Pandectist theory, incorporeal things were considered as exceptions to the rule that things could only be corporeal.³⁷ Cloete notes that this narrow interpretation of the thing concept is not generally accepted as correct and discusses the role that the broader meaning of the constitutional property concept has had on the development of the private law concept of property.³⁸ He finds that incorporeal objects and rights can be accommodated either within the existing private law paradigm, or within the wider constitutional paradigm.³⁹ He proposes that in certain circumstances *ad hoc* legislation should be introduced to provide better protection and security for particular categories of objects or interests in property.⁴⁰ After his literature analysis, it is clear that the dogmatic view that incorporeal things should not be considered as things is incorrect.⁴¹ The development surrounding the wider public law thing concept, viewed together with the existing theoretical and

³⁵ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 4; 316-317.

³⁶ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 4; 78-80; 316.

³⁷ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 3; 80; 317.

³⁸ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 5;113; 318-319.

³⁹ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 5; 331-333.

⁴⁰ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 333.

⁴¹ Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) 333.

practical pressures for the adoption of a wider private law thing-concept, could be the catalyst for finally ending the narrow private law approach.

German private law also shares in the Roman-Germanic private law tradition and the German civil code (*Bürgerliche Gesetzbuch – BGB*) explicitly restricts the objects of property rights⁴² to corporeal things.⁴³ In German private law, the objects of property interests are defined in terms of “things”. These “things” are restricted to corporeals by §90 of the civil code (*BGB*) of 1900: “*Sachen im Sinne de Gesetzes sind nur körperliche Gegenstände*” (things in terms of the law are restricted to corporeal objects).⁴⁴

The position in Dutch private law, which is also closely related to South African private law,⁴⁵ has recently⁴⁶ changed because the Dutch civil code moved away from its earlier wide view of property to a narrow one, focused on corporeal objects, combined with assigning other assets to the wider category of property law

⁴² Which is referred to as “ownership” or *Eigentum*. See Wieling HJ *Sachenrecht* (5th ed 2007) 87; 90.

⁴³ Van der Walt AJ *Constitutional Property Law* (2005) 78; Bauer F, Bauer JF & Stürner R *Sachenrecht* (17th ed 1999) 11; Wieling HJ *Sachenrecht* (5th ed 2007) 4-5; 21; Wilhelm J *Sachenrecht* (2nd ed 2002) 1.

⁴⁴ Bauer F, Bauer JF & Stürner R *Sachenrecht* (17th ed 1999) 11; Wieling HJ *Sachenrecht* (5th ed 2007) 4-5; 21; Wilhelm J *Sachenrecht* (2nd ed 2002) 1; Van der Walt AJ *Constitutional Property Law* (2005) 79 fn 64; Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 117.

⁴⁵ But unlike the position in German law, the property provision in the Dutch Constitution is not entrenched. Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 117 fn 106.

⁴⁶ In 1992.

(*goederenrecht*).⁴⁷ Book 5 article 1 of the civil code focuses on property rights and defines these rights narrowly as rights in corporeal things,⁴⁸ which is in turn complemented by the wider patrimonial focus on property in Book 3.⁴⁹ The definition of “things” in Book 3 article 2 of the Dutch civil code (*Nieuw Burgerlijk Wetboek – NBW*) of 1992 is similar to the German definition: “*Zaken zijn de voor menselijke beheersing vatbare stoffelijke objecten*”⁵⁰ (things are corporeal objects that are susceptible to human control).⁵¹ In contrast, property or goods (*goederen*) are defined more widely in Book 3 Article 1 as: “*Goederen zijn alle zaken en vermogensrechten*” (property includes all things as well as patrimonial rights).

5 2 2 3 2 Constitutional law

Van der Walt states that “[i]n legal systems based on the Roman-Germanic private law tradition the central question is whether constitutional property includes rights

⁴⁷ Pitlo A, Reehuis WHM & Heisterkamp AHT *Goederenrecht: Part 3 of Het Nederlands Burgerlijk Recht* (12th ed 2006) 1-2; Van der Walt AJ *Constitutional Property Law* (2005) 78 fn 63.

⁴⁸ “Eigendom is het meest omvattende recht dat een persoon op een zaak kan hebben” (Ownership is the most extensive right a person can have on a corporeal object). Akkermans B *The Principle of Numerus Clausus in European Property Law* (2008) 257-258.

⁴⁹ Book 3 deals with legal relationships involving wider patrimonial rights (such as corporeal and incorporeal objects), but also includes a definition of *things*. See Van der Walt AJ *Constitutional Property Law* (2005) 78 fn 63.

⁵⁰ Pitlo A, Reehuis WHM & Heisterkamp AHT *Goederenrecht: Part 3 of Het Nederlands Burgerlijk Recht* (12th ed 2006) 2.

⁵¹ Van der Walt AJ *Constitutional Property Law* (2005) 79 fn 64.

and interests in corporeal or intangible assets,”⁵² even though those rights and interests are not recognised as property in private law. In contrast to this problematic issue in the Roman-Germanic traditions, the Anglo American jurisdictions do not differentiate so strictly between public and private law and the property law concept has always been wider than in Roman-Germanic law.⁵³ As such, the resulting question of inclusion of incorporeal objects is predominantly a typically Roman-Germanic issue.⁵⁴

In the Roman-Germanic tradition, the term “property” as a (relatively recently developed) constitutional concept usually has an extensive or wide meaning, while in private law it is usually narrow and limited to corporeal things and some real

⁵² Van der Walt AJ *Constitutional Property Law* (2005) 82.

⁵³ See Van der Walt AJ *Constitutional Property Law* (2005) 82; Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 135-136. Van der Walt points out that there has been a general tendency in the past century to view all property not in terms of objects, but rather in terms of rights and relationships (in keeping with post-realist jurisprudence). In terms of this view, property is described in terms of a number of theories that attempt to define the property concept as rights in relationships and not in terms of a classification of objects of property. However, even this post-realist US property concept is still qualified by the older, more thing-orientated concept of property where the emphasis is sometimes based on exclusivity as the essential or core stick in the bundle of property rights. This is perceptible in cases such as *Loretto v Teleprompter Manhattan CATV Corp* 458 US 419 (1982) and *Kaiser Aetna v United States* 444 US 164 (1970). Despite this, Van der Walt notes that the objects of property tend to play a distinctly minor role in case law and literature.

⁵⁴ Van der Walt AJ *Constitutional Property Law* (2005) 82; Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 114-115.

relations.⁵⁵ Constitutional courts have developed a wider constitutional property concept, which differs from the private law property concept where the object of property rights is traditionally restricted to corporeal things. The constitutional property concept includes a range of incorporeal objects and rights and in this sense the constitutional property concept in the Roman-Germanic jurisdictions is closer to the traditionally wider (private property) concept in the Anglo-American jurisdictions.⁵⁶ The range of objects of constitutional property is relatively wide regardless of the question whether the constitutional property clause refers to “property”, “possessions” or “ownership”.⁵⁷

In South African law the position is as follows. The Constitutional Court has confirmed that land and movable corporeals must be regarded as property for purposes of section 25.⁵⁸ However, the Court has not yet delivered a judgement where it addresses the question whether the section 25 use of “property” is restricted to corporeals.⁵⁹ The Constitutional Court accepted that “ownership of corporeal

⁵⁵ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 10; Currie I & De Waal J *The Bill of Rights Handbook* (5th ed 2005) 536-537.

⁵⁶ Van der Walt AJ *Constitutional Property Law* (2005) 109; Currie I & De Waal J *The Bill of Rights Handbook* (5th ed 2005) 538-539.

⁵⁷ Van der Walt AJ *Constitutional Property Law* (2005) 109.

⁵⁸ In the *First Certification* case judgement the Court confirmed that “no universally recognised formulation of the right to property exists”: *Ex Parte Chairperson of the Constitutional Assembly: In re Certification of the Constitution of the Republic of South Africa* 1996 (4) SA 744 (CC) par 72 at 798 E-F. See also Currie I & De Waal J *The Bill of Rights Handbook* (5th ed 2005) 536.

⁵⁹ Van der Walt AJ *Constitutional Property Law* (2005) 81; Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 113.

movables (and land) must lie at the heart of our constitutional concept of property, both as regards the nature of the right involved and the object of the right".⁶⁰ The Court also found it "practically impossible and judicially unwise" to comprehensively define the concept of property.⁶¹ It seems as if the courts will interpret the property concept widely for constitutional purposes⁶² and the constitutional property concept will most probably extend well beyond just corporeal objects.⁶³ Van der Walt expects that the property concept will be wider than in common law. However, in line with the general approach taken in other jurisdictions, restrictions will apply. These restrictions will be that only rights that are demonstrably vested in the claimant and also having some patrimonial value would be included in the constitutional property concept.⁶⁴

⁶⁰ *First National Bank of SA Ltd t/a Wesbank v Comissioner, South African Revenue Service; First National Bank of SA Ltd t/a Wesbank v Minister of Finance* 2002 (4) SA 768 (CC) par 51 at 794E-F. The position taken in *First National Bank* was later followed in *Zondi v MEC for Traditional and Local Government Affairs* 2005 (3) SA 25 (N) 34E, where livestock as corporeal movables was accepted as property for purposes of s25 of the Constitution.

⁶¹ Van der Walt AJ *Constitutional Property Law* (2005) 81.

⁶² Van der Walt AJ *Constitutional Property Law* (2005) 81. See also Van der Walt AJ *Constitutional Property Clauses: A Comparative Analysis* (1999) 351-353.

⁶³ Van der Walt AJ *Constitutional Property Clauses: A Comparative Analysis* (1999) 353. As an example of this, the Supreme Court of Appeal in *Nkosi v Bührmann* 2002 (1) SA 372 (SCA) par 37 indicated that even rights not emanating from contract or legislation (and as such being unprotected in terms of private law) would qualify for protection as property. The case dealt with the enforcement of customary burial rights.

⁶⁴ Van der Walt AJ *Constitutional Property Clauses: A Comparative Analysis* (1999) 353 incl fns 155, 156; Currie I & De Waal J *The Bill of Rights Handbook* (5th ed 2005) 540.

Section 25 does not specify that movable corporeal property is property for the purposes of the clause, but it is accepted that it is.⁶⁵ Van der Walt states that failure to specify whether a “particular category of objects is property for purposes of the property clause is neither a fatal shortcoming in the provision nor an indication that such an object is not property.”⁶⁶ It follows that because the property clause contains no explicit references to any specific category of property interests the conclusion should be that “if property is protected in general, and no mention is made of any specific kind of property, it has to be inferred that any kind of property interest that is not excluded explicitly or by necessary implication is included, probably as long as it is recognised as property by law.”⁶⁷ Van der Walt mentions that this is particularly the case when the relevant category of interests is recognised as property in private law. This means that at least some incorporeals will be treated as property in South African constitutional law and in view of foreign examples constitutional property would probably also include intellectual property,⁶⁸ certain “rights in rights”⁶⁹ and other commercial property interests.⁷⁰ According to Van der Walt the inclusion of these interests under the protection of the property clause would probably depend on questions about their independent existence and the vesting of rights in or

⁶⁵ See the discussion above, esp fn 615.

⁶⁶ Van der Walt AJ *Constitutional Property Law* (2005) 86.

⁶⁷ Van der Walt AJ *Constitutional Property Law* (2005) 87.

⁶⁸ Such as copyright, trademarks and patents.

⁶⁹ Mineral rights, leases, security interests and other commercial property based on contract.

⁷⁰ Such as shares and licences. Van der Walt AJ *Constitutional Property Law* (2005) 87.

acquisition thereof by the claimant.⁷¹ Van der Walt states that the constitutional protection that could be accorded to virtual property would probably be in terms of either an established category of intellectual property or a commercial property interest.⁷² Of course, it is possible that in cases where private law does not provide protection for virtual property, it could still be protected by constitutional law for specific constitutional reasons. In addition, if private law should provide protection for virtual property, it is highly likely that constitutional protection will automatically follow.

A similarly wider constitutional property concept was developed by the German Federal Constitutional Court when it decided not to restrict the objects of constitutional property to corporeals in terms of article 14.⁷³ This wider concept was based on (but distinct from) the narrower private law concept. For purposes of article 14 GG the meaning and context of the term have been determined with reference to the Basic Law and not according to private law.⁷⁴ This has resulted in the wider interpretation attached to the objects of property rights in constitutional law as well as the disparity in the interpretation of the term *Eigentum* (as referring to property rights) when it is interpreted as “things” for private law purposes and as “property” for

⁷¹ Van der Walt AJ *Constitutional Property Law* (2005) 88.

⁷² Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 150.

⁷³ Van der Walt AJ *Constitutional Property Law* (2005) 79.

⁷⁴ See *BVerfGE* 58, 300 [1981] (*Naßauskiesung*) at 335.

constitutional property law purposes.⁷⁵ For the purposes of the German property clause, not only corporeal things, but a number of incorporeal objects are regarded as property and examples include a range of incorporeal objects, rights and other interests.⁷⁶

5 2 2 4 Conclusion

After the analysis of the diverse meanings attached to the term “property” above, it is clear that there is no single definitive meaning that can be attached to the property concept. The meaning of “property” covers a whole spectrum from just a tangible object (thing) to intangible patrimonial assets that are as ephemeral as rights that are the objects of other rights. The meaning is often determined by the context in which it is used and typically, any patrimonial interest that has value could be regarded as property in the wide sense of the term.

Property has a wider meaning in the Anglo-American private law traditions. Because of this, it would not be difficult to include virtual property as part of Anglo-American property law. This could happen if there is enough justification for recognising virtual property as property. From the foregoing discussion in chapter

⁷⁵ Van der Walt AJ *Constitutional Property Law* (2005) 79.

⁷⁶ Van der Walt AJ *Constitutional Property Law* (2005) 79 fn 64; Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 117-118.

four, this would seem to be the case. Therefore, virtual property could be protected against both private and state interferences in private and constitutional law.

In the Roman-Germanic tradition the focus with regard to “property” is usually on the objects of property. Because of this, property is usually narrowly interpreted and associated with tangible things. However, this narrow application of the private law concept of property is not universally accepted in South Africa. This can be seen by the recent trend in South African law that certain exceptions to this principle are recognised and by the number of arguments for the widening of the definition in general. It seems clear that in South-African law this narrow interpretation of property is an archaic notion that should (arguably) be replaced by a wider understanding of property that includes intangible things. This could allow for recognition of virtual property or in private law, but it is more likely if the right is protected in legislation than if it is not.

This wider understanding of the property concept is also found in the public law sphere and especially under constitutional law. The property concept will be applied to virtual property later on in the chapter.

It was shown that in the civil law systems, property is defined much wider under constitutional law than under private law. Because of this wider definition, one can conclude that it is possible to protect virtual property in constitutional law even if it is not recognised in private law.

After the analysis above, one can conclude that it would be much easier to accept that virtual property will be included as property in the Anglo-American legal systems, but it may be harder (but not impossible) to achieve the same recognition in

Roman-Germanic systems. It is this problematical fact that the focus in Roman-Germanic civil law systems is on corporeality that closer analysis of this issue is required. Because of this, the next section will deal just with civil law and South African law.

5 2 3 Characteristics of things⁷⁷

5 2 3 1 Corporeality⁷⁸

In the civil law tradition, the first characteristic of a thing is that it is usually said to be corporeal or tangible. This restriction is due to both dogmatic and systemic reasons, but the restriction that a thing has to be corporeal depends on tradition and the prevailing notions in society, rather than on physics.⁷⁹

⁷⁷ See generally: Van der Merwe CG *Sakereg* (2nd ed 1989) 24; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 412; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 12; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 14.

⁷⁸ See generally: Van der Merwe CG *Sakereg* (2nd ed 1989) 27; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 412; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 14-19.

⁷⁹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13. However, for a different view refer to the discussion above about the private law approach to property as the object of rights, where Cloete asserts that not only a narrow thing concept is accepted in South African private law. Cloete provides this differing view in his LLD dissertation and illustrates how the prevailing notions of society can influence this restriction. See Cloete R *Onstoflike Sake in die Nuwe Suid-Afrikaanse Sakereg* (2001) viii-ix; 318.

A thing can be observed with at least one of the five senses and it occupies a certain volume of space.⁸⁰ While certain forces of nature like gravity, heat, radio activity, light, sound and electricity can be perceived by one of the senses, they are nevertheless said to be excluded from the definition of a thing in South African law because they cannot be described in terms of space.⁸¹ Some foreign legal systems in the civil law tradition⁸² do accept that certain forces of nature such as electricity and atomic energy qualify as things because of the similarities they share with corporeal things.⁸³ According to German law, things were not always restricted to corporeals, but the position has changed since codification.⁸⁴ Currently, §90 of the *BGB* restricts things to corporeal objects (*körperliche Gegenstände*) and electricity (*Energie*) is not regarded as an exception to this rule.⁸⁵ A similar approach was

⁸⁰ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 14. See *Nahrungsmittel GmbH v Otto* 1993 (1) SA 639 (A); *Serva Ship Ltd v Discount Tonnage Ltd* [2000] 4 All SA 400 (A).

⁸¹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13.

⁸² The French Civil Code Art 529 states that "Obligations and actions having as their object sums due or movable effects, shares or interests in financial, commercial or industrial concerns, even where immovables depending on these enterprises belong to the concerns, are movables by prescription of law". For Italian law see the Italian Civil Code Art 814 that accepts energy as an object of property rights. The Swiss Civil Code Art 713 deals with movable property and includes forces of nature which can be brought under legal control and do not belong to land.

⁸³ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13.

⁸⁴ Wieling HJ *Sachenrecht* (2nd ed 2006) 54; Wieling HJ *Sachenrecht* (5th ed 2007) 4-5.

⁸⁵ Wieling HJ *Sachenrecht* (2nd ed 2006) 55.

followed in the Netherlands but the position has changed after the new civil code has been adopted.⁸⁶

In contrast to this strict adherence to the principle of corporeality, several incorporeal things have been recognised in South African law.⁸⁷ This recognition comes from both statute and case law and occurs especially where the object of the real right is another subjective right.⁸⁸ The subjective rights that are currently recognised in South African law are real rights (with things as objects); personal rights (with performance as an object);⁸⁹ intellectual property rights (with intellectual property as objects); personality rights (with aspects of personality as objects).⁹⁰ In

⁸⁶ See the discussion above at 5.2.2.3.

⁸⁷ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 35.

⁸⁸ Examples where incorporeal things have been recognised in case law are: *Le Riche v PSP Properties CC* [2005] 4 All SA 551 (C); *Telkom SA Ltd v Xsinet (Pty) Ltd* 2003 (5) SA 309 (SCA) (creditor's right to the use of a telephone and bandwidth system installed on business' premises); *Graf v Buechel* 2003 (4) SA 378 (SCA) (company director's loan account); *Ben-Tovin v Ben-Tovin* 2001 (3) SA 1074 (C) (shares in a company providing shareholders with a claim against the company); *Badenhorst v Balju Pretoria Sentraal* 1998 (4) SA 132 (T) (membership interest in a close corporation); *Thomas v BMW South Africa (Pty Ltd)* 1996 (2) 106 (C) (right of action); *Nahrungsmittel GmbH v Otto* 1992 (2) SA 748 (C) (claim for payment of costs).

⁸⁹ Also sometimes referred to as creditor's rights (with obligations as objects).

⁹⁰ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 11; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 14; *Universiteit van Pretoria v Tommie Meyer Films* (Edms) Bpk 1977 (4) SA 376 (T).

terms of common law, if any of these subjective rights serves as the object of a real right, it is regarded as an incorporeal thing.⁹¹

The restriction of things to corporeals and the required characteristic of corporeality cause dogmatic problems. Several proposals about how these problems could be addressed have been made.⁹² The first proposal is that the concept of an incorporeal thing is discarded on dogmatic grounds and that the (infrequent) appearance of such incorporeal things should be restricted to playing a limited role in practice.⁹³ In such a situation, the characteristic of corporeality would be retained and the appearance and acceptance of intangible things would be restricted to the occasional exception created by statute or precedent. The second proposal to address this problem is that the existence of the concept of intangible things should be recognised as a regular aspect of private law that is necessitated by the needs of modern South African legal practice. In terms of this suggestion, the characteristic of corporeality of things should be discarded.⁹⁴ Thirdly, a compromise between the first two options is offered. This compromise would lie in recognition of incorporeal things as patrimonial rights serving as the object of limited real rights. Effectively this means

⁹¹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 11.

⁹² Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 34.

⁹³ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 34.

⁹⁴ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 34.

that such patrimonial rights (together with corporeal things) that serve as the objects of limited real rights, are considered as property in the wider sense.⁹⁵

This section has very important implications for this dissertation. This is *the* characteristic on which recognition of virtual property will succeed or fail, depending on whether South African law can either stick with recognition of exceptions as and when necessary or totally abandon the narrow approach (which is unlikely). With regard to the exceptions, it is crucial to note that the exceptions are mostly made for rights recognised in, created by or specially protected in legislation. This could indicate that the easiest way in which to achieve recognition of virtual property in South Africa would be by the promulgation of special legislation that either protects virtual property explicitly or else results in an exception being created for virtual property.

⁹⁵ Badenhorst PJ, Pienaar JM & Mostert H suggest that “the common law distinction between corporeals and incorporeals should rather be seen as categories of different kinds of patrimonial objects, namely things and patrimonial rights serving the function of the object of limited real rights.” Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 34.

5 2 3 2 External to persons⁹⁶

One of the characteristics of a thing is that it must be of an impersonal nature and external to man.⁹⁷ In today's society, human beings are regarded only as legal subjects and never as legal objects.⁹⁸ Although human corpses or parts of corpses could be classified as legal objects, this will apply with the proviso that they fall outside of legal commerce. A living human being and its members or body parts are normally considered incidents of one's personality and therefore not things.⁹⁹ However, certain body parts, like human hair used to make a wig, can be regarded as negotiable legal objects when they are no longer connected to a human being.¹⁰⁰ These exceptions are subject to the provisions contained in legislation.¹⁰¹

⁹⁶ See generally: Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 414; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 19; Van der Merwe CG *Sakereg* (2nd ed 1989) 23.

⁹⁷ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13.

⁹⁸ This is in contrast to Roman times (amongst others) when certain human beings (usually slaves) were treated as things: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13.

⁹⁹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 13.

¹⁰⁰ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 20.

¹⁰¹ Examples of legislation dealing with human body parts include the Post Mortem Examinations and Removal of Human Tissues Act 30 of 1952; the Anatomy Act 20 of 1959 and the Anatomical Donations and Post Mortem Examinations Act 24 of 1970, which were later consolidated into the Human Tissue Act 65 of 1983. The Human Tissue Act 65 of 1983 makes provision for the possibility to donate and make available human bodies and tissue for the purpose of education and research: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 14.

5 2 3 3 Independence¹⁰²

A thing must be a definite and distinct entity that can exist separately from anything else and have a well-defined existence in space.¹⁰³ Things such as running water, land, sand and gasses are not initially regarded as independent and need to be separated into manageable and recognisable entities by human activity before they are regarded as property objects falling within legal commerce.¹⁰⁴ Immovable things come into being once they have been demarcated on a surveyor's plan, diagram, aerial photo or general plan and the plan is approved and registered in the Deeds Register,¹⁰⁵ while a building usually forms part of the land on which it is erected.¹⁰⁶ A third example is the sectional title unit that is considered an immovable thing and a separate legal entity insofar as it is described in terms of the registered sectional plan.¹⁰⁷

¹⁰² See generally: Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 414; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 14 where it is referred to as *individuality*; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 14, 21; Van der Merwe CG *Sakereg* (2nd ed 1989) 25.

¹⁰³ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 14.

¹⁰⁴ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 14.

¹⁰⁵ These requirements are contained in the Deeds Registries Act 47 of 1937 and the Land Survey Act 8 of 1997.

¹⁰⁶ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 20.

¹⁰⁷ In terms of the Sectional Titles Act 95 of 1986.

5 2 3 4 Appropriability / Susceptibility to human control¹⁰⁸

A thing must be capable of being subjected to human control.¹⁰⁹ If an object is not susceptible to such control it would not qualify as a thing. Examples of things that are not susceptible to human control are the celestial bodies such as the sun, moon, planets and even shipwrecks that lie inaccessible on the bottom of the ocean.¹¹⁰ Aspects of nature such as the sea and air that are not separated into manageable units are also not considered to be things.

5 2 3 5 Use and value¹¹¹

A thing must be of use and value to legal subjects and destined to meet the needs of a legal subject.¹¹² If a legal subject has no use or value for a corporeal thing, no legal

¹⁰⁸ See generally: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 21; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 415; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 14; Van der Merwe CG *Sakereg* (2nd ed 1989) 26.

¹⁰⁹ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 20.

¹¹⁰ Due to technological advances, this category will cease as man finds new and innovative ways to get access to and take control of these things: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 14.

¹¹¹ See generally: Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 415; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 15; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 21; Van der Merwe CG *Sakereg* (2nd ed 1989) 27.

relationship can exist between a corporeal thing and a legal subject. An important consideration here is that the thing does not necessarily need to have economic value, as sentimental value is also regarded as sufficient to satisfy this requirement.¹¹³ To illustrate, one can use the example of a dead leaf in a garden. In a person's subjective evaluation, the leaf may not have any value and could constitute a nuisance. However, objectively evaluated, it may have value because it can be used as compost, for scientific study or even for arts and crafts. Because it is capable of satisfying someone's needs (objectively speaking) it is regarded as a thing.¹¹⁴

5 2 3 6 Conclusion

With the exception of the requirement of corporeality, the requirements mentioned above should not stand in the way of the recognition of virtual property in private law. The only issue is the question whether the incorporeal aspect of virtual property could be included under an existing exception in South African law, or whether it can be expanded to include virtual property. This aspect is discussed in more detail later in the chapter at 5 3 4 2 where the (in)corporeal aspect of virtual property is analysed.

¹¹² Van der Merwe CG *Sakereg* (2nd ed 1989) 27.

¹¹³ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 15.

¹¹⁴ Van der Merwe CG *Sakereg* (2nd ed 1989) 27.

5 2 4 Classification of things¹¹⁵

5 2 4 1 Introduction

In the civil law tradition, things were traditionally classified according to their relation to man or according to their own nature.¹¹⁶ The division according to their relation to man relates to the question whether something is susceptible to private ownership or not.¹¹⁷ This results in the distinction between things that are in commerce¹¹⁸ (*res in commercium*) and things that are outside of commerce (*res extra commercium*).¹¹⁹ Things outside of commerce are further divided into common things (*res communes*), public things (*res publicae*), things belonging to corporate bodies (*res universitatis*) and religious things¹²⁰ (*res divini iuris*).¹²¹

¹¹⁵ Van der Merwe CG *Sakereg* (2nd ed 1989) 27; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 23; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 416; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 10; 15.

¹¹⁶ Van der Merwe CG *Sakereg* (2nd ed 1989) 27; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 24.

¹¹⁷ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 15.

¹¹⁸ Things that can be privately owned or be the objects of other real rights: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 24.

¹¹⁹ Things that are not susceptible to private ownership.

¹²⁰ In Roman law.

¹²¹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 15; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 24.

The alternative division according to the nature of the objects distinguishes between corporeals and incorporeals; single and composite things; movables and immovables; tangibles and non-tangibles; consumables and non-consumables; and divisible and indivisible things.

The discussion of the classification of things in the real world is important for comparative purposes since it ties in to the discussion of the classification of things in the virtual world that follows.

5 2 4 2 Classification according to their relation to a person

5 2 4 2 1 Non-negotiable things¹²²

Non-negotiable things cannot be privately owned and as such fall outside of the commercial sphere. There are four prominent types of such things. Firstly there are common things that are common to all people, but at the same time belong to no-one.¹²³ Examples of this include natural resources that fall outside of legal commerce and that are available to all people, for example free air and running water (*res omnium communes*).¹²⁴ Public things constitute the second example of non-negotiable things. These are things owned by the state and used directly for the

¹²² As discussed in Van der Merwe CG *Sakereg* (2nd ed 1989) 27; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 31-33.

¹²³ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 25.

¹²⁴ Van der Merwe CG *Sakereg* (2nd ed 1989) 30.

benefit of the public (*res publicae*).¹²⁵ Examples include public roads, national parks and the beach.¹²⁶ Not all state property falls outside of commerce, since state land and buildings are usually negotiable. The third type of non-negotiable thing relates to things belonging to corporate bodies (*res universitatis*) and not to individual persons.¹²⁷ Examples include objects of property like markets, theatres, guildhalls and churches that belong to municipalities and statutory boards. Generally, these types of corporate bodies are juristic persons according to public law and not private law.¹²⁸ The last type of non-negotiable thing in this category is called religious things (*res divini iuris*) and used to be outside of commerce.¹²⁹ This position has changed after the reformation when all such things became susceptible to private

¹²⁵ Van der Merwe CG *Sakereg* (2nd ed 1989) 31.

¹²⁶ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 25.

¹²⁷ Even though this category of things is still listed and discussed in the prominent South-African property law books, the relevance and existence of the category in modern property law is questionable. See Van der Merwe CG *Sakereg* (2nd ed 1989) 28; Mostert H & Pope A (eds) *The Principles of the Law of Property in South Africa* (2010) 31; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 29-30; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 16.

¹²⁸ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 16; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 30.

¹²⁹ Van der Merwe CG *Sakereg* (2nd ed 1989) 35.

ownership.¹³⁰ However, as will appear below, this type of non-negotiable thing is often found inside virtual worlds.¹³¹

5 2 4 2 2 Negotiable things

Negotiable things are susceptible to private ownership and are further categorised as either being owned by a person or not owned by a person.¹³² Examples of the first type are things owned by a natural or legal person or things in a deceased or insolvent estate (*res alicuius*).¹³³ The second type refers to things that are capable of being owned but that are not owned at a particular stage by anyone (*res nullius*). Examples of this are wild animals, birds and fish that are wild by nature and have not been owned by anyone. Ownership of these things may be acquired by appropriation. There are three categories of *res nullius*, namely things that have never been privately owned (such as wild animals) before their capture; wild animals, birds and bees that have regained their freedom and ceased to be owned privately; and things that have been abandoned with the intention¹³⁴ to relinquish ownership

¹³⁰ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 30.

¹³¹ See discussion at 5.3.5.2 below.

¹³² See in general: Van der Merwe CG *Sakereg* (2nd ed 1989) 278; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 31-33.

¹³³ Van der Merwe CG *Sakereg* (2nd ed 1989) 29.

¹³⁴ If the owner does have the intention of still being owner of such a thing, but has lost the thing and is no longer in physical control of it, it is called a *res deperditae* and in this case the thing cannot be

and are no longer within the physical control of their owners (*res derelictae*). Ownership of these things may also be acquired by appropriation.

5 2 4 3 Classification according to nature

5 2 4 3 1 Corporeal and incorporeal things¹³⁵

In the civil law tradition, corporeal things were those things that were tangible or perceivable by the external senses. Intangible things and rights were classified as incorporeal things.¹³⁶ In property law, real rights and personal rights that function as objects of limited real rights are classified as incorporeal things.¹³⁷

acquired by another person by means of appropriation: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 33.

¹³⁵ The corporeality requirement of a thing is discussed in chapter 2 above at 2.4.1. See Van der Merwe CG *Sakereg* (2nd ed 1989) 36; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 33-34.

¹³⁶ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 33.

¹³⁷ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 33; *Desai v Desai* 1993 (3) SA 874 (N).

5 2 4 3 2 Movable and immovable things

Things are further classified as being either movable or immovable.¹³⁸ A thing is considered to be a movable if it can be moved from one place to another without damaging it or losing its identity.¹³⁹ Immovable (corporeal) things are usually units of land, including all things that are permanently attached to the land. Immovable things can also refer to sectional title units. As a rule, all things that cannot be classified as immovables are classified as movables.¹⁴⁰ The distinction between movable and immovable things is of special importance in the following circumstances: transfer of ownership; contracts to alienate immovable things; real security; and the sale of a debtor's assets in execution.¹⁴¹

The transfer of movables takes place by means of delivery of the thing to the receiver with the intention to transfer ownership. However, transfer of immovable things takes place by means of registration of the transfer in the deeds registry (also with the intention of transferring ownership).¹⁴² When alienating immovable things, certain formalities must be adhered to and these are prescribed in legislation.¹⁴³ Although credit agreements in respect of movable things must also meet the

¹³⁸ Van der Merwe CG *Sakereg* (2nd ed 1989) 39; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 34-39.

¹³⁹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 24.

¹⁴⁰ Van der Merwe CG *Sakereg* (2nd ed 1989) 42.

¹⁴¹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 28-29.

¹⁴² Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 28.

¹⁴³ Alienation of Land Act 68 of 1981; Property Time-sharing Control Act 75 of 1983 and the Sectional Titles Act 95 of 1986.

requirements and formalities set out in legislation,¹⁴⁴ no other formalities are needed to alienate movable things. In the case of real security over immovable things, the real security is provided by means of the registration of mortgages. Security for movable things is provided by means of pledge or the registration of a notarial bond.¹⁴⁵ When a debtor is faced with a sale in execution of his assets, his movable assets must first be attached to try to cover the debt, and only if that fails to cover the debt may his immovables be attached.¹⁴⁶

Both immovables and movables can be either corporeal or incorporeal.¹⁴⁷ An example of a corporeal immovable thing is a piece of land as indicated on a general plan and registered in the Deeds Office.¹⁴⁸ Real and personal servitudes in respect of immovable things can be regarded as incorporeal immovable things.¹⁴⁹ An example of a corporeal movable thing is any tangible thing that is not immovable, like

¹⁴⁴ National Credit Act 34 of 2005.

¹⁴⁵ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 36.

¹⁴⁶ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 29.

¹⁴⁷ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 34-35.

¹⁴⁸ Van der Merwe CG *Sakereg* (2nd ed 1989) 42.

¹⁴⁹ Other examples of rights that acquire the character of incorporeal immovable property on registration against the title deed of land include: praedial and personal servitudes (like usufruct, use and habitation) over immovable property; a lease over immovable property that gives rise to a *ius in re*; grants and leases of mineral rights; charges on land; real actions for the vindication of registered immovable property; a fiduciary interest in immovable property; registered mortgages over immovable property; and other real rights such as the right of occupation for a term of years: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 26.

a car or a computer. An incorporeal movable thing could be something like a share in a company.¹⁵⁰

5 2 4 3 3 Divisible and indivisible things

A divisible thing can be divided into smaller components while retaining its nature and function, without the smaller components losing their proportional value.¹⁵¹ An example is a piece of land that can be divided into smaller pieces. Generic movables like a volume of building sand are also divisible. An indivisible thing cannot be divided into smaller pieces without changing the value, nature or function of the thing.¹⁵² An example of this would be a piece of furniture like a chair.

¹⁵⁰ Other examples of incorporeal movable property include shares in a company; real rights having as their object a movable such as a pledge, notarial bond or a usufruct over movables; hypothecary rights in respect of a debt; any rights *in personam* which are connected with the transfer of movable property from one person to another or which can be satisfied by a money payment; dividends or other periodic payments not solely charged on land; the goodwill of a business; and patents, designs, trademarks and copyright and, in general all incorporeal things which are not considered to be movable: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 26-27.

¹⁵¹ Van der Merwe CG *Sakereg* (2nd ed 1989) 49.

¹⁵² Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 24; Van der Merwe CG *Sakereg* (2nd ed 1989) 49.

5 2 4 3 4 Consumable and non-consumable things

Consumable things such as wine, bread and fast food are either consumed or depleted through their normal use. Non-consumable things, like houses and cars essentially remain the same if used normally and are only subject to normal wear and tear.¹⁵³ When consumables are destroyed by normal use, they can usually be replaced with a similar thing if the consumed thing was loaned or leased. The distinction is important for the following reasons.¹⁵⁴ A usufruct can only be given regarding non-consumable things because of the requirement that the object of the usufruct must be kept and returned to the owner in the same condition (*salva rei substantia*). However, a *quasi*-usufruct can be given regarding consumable things if the holder of the right is compelled to return things of the same amount and quality as was consumed. Money is regarded as a consumable thing and a quasi-usufruct can be given in respect of it.

5 2 4 3 5 Fungible and non-fungible things

Fungible things belong to a certain generic class of things that can be replaced by any other similar thing.¹⁵⁵ They do not have any characteristics that make them so unique as to be considered irreplaceable. A ream of copier paper can just as easily

¹⁵³ Van der Merwe CG *Sakereg* (2nd ed 1989) 48.

¹⁵⁴ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 23.

¹⁵⁵ Van der Merwe CG *Sakereg* (2nd ed 1989) 43; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 22.

be replaced with another similar ream of paper. In trade, fungible things are often referred to in terms of weight, measure or number. Non-fungible things are considered irreplaceable because they have unique characteristics or value. Examples are original paintings or hand crafted Fabergé Easter eggs. A fungible thing may become a non-fungible thing in certain circumstances, for example due to sentimental reasons. Money is considered a fungible thing.

5 2 4 3 6 Singular and composite things

Things are either singular or composite.¹⁵⁶ Singular things can exist independently without being composed of any other distinct components (like a piece of wood, wine glass or a compact disk).¹⁵⁷ Composite things are composites of various independent things that have lost their individuality due to being either organically or mechanically united into a single entity.¹⁵⁸ Examples include a motor car, or a laptop computer.

A distinction is made between the composite thing and the individual components of which it comprises. Composite things comprise of the following elements: a principal thing, accessory thing, auxiliary thing and fruits.¹⁵⁹ Principal things are

¹⁵⁶ Van der Merwe CG *Sakereg* (2nd ed 1989) 49; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 21.

¹⁵⁷ Van der Merwe CG *Sakereg* (2nd ed 1989) 49.

¹⁵⁸ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 21.

¹⁵⁹ Van der Merwe CG *Sakereg* (2nd ed 1989) 51.

capable of independent existence from the composite thing and can be the objects of real rights.¹⁶⁰ The component of a composite thing that provides the thing with its identity is considered the principal thing.¹⁶¹ This means that the owner of the principal thing is also the owner of the composite thing, even if it includes accessory and auxiliary things that have acceded to the principal thing. Examples include a motor car, keyboard or hairdryer.

An accessory thing can exist independently of the principal thing but has merged with or been mixed with the principal thing with the result of losing its independence.¹⁶² An example of an accessory thing will be a brick that is built into the wall of a house, or a memory chip installed into a laptop.

An auxiliary thing can exist separately from the principal thing and has not acceded to it physically. However, because of its economic value, destination or use it is no longer regarded as an independent thing for the purposes of property law.¹⁶³ A physical connection with the principal thing is not necessary. An example of this is the key to a house or a set of driver disks sold with a laptop computer.

¹⁶⁰ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 41.

¹⁶¹ *Khan v Minister of Law and Order* 1991 (3) SA 439 (T).

¹⁶² Van der Merwe CG *Sakereg* (2nd ed 1989) 51.

¹⁶³ Van der Merwe CG *Sakereg* (2nd ed 1989) 52.

Fruits are things that are produced by the principal thing without the destruction or consumption of the principal thing.¹⁶⁴ Fruits are regarded as accessory to the principal thing before they are separated but are always destined to be separated and to exist independently. Examples include natural fruits like fruit of trees, plants and organic and inorganic things that renew themselves like milk or wool. Another example is civil fruits like interest on capital, rent or dividends on shares.¹⁶⁵

5 2 5 Conclusion

In the first part of this chapter I have discussed the varying approaches to the property concept by looking at the narrow and wide approaches encountered across jurisdictions. It is clear from the investigation that one of the biggest dividing factors between the conceptual understandings of property is the attribute of physical tangibility that is an essential requirement for recognition as property in certain legal traditions and jurisdictions. In Anglo-American law, the property concept is less problematic because there is less focus on the object and more on rights, which results in a wide definition of property rights and basically no difference between private and constitutional law. The jurisdictions that follow this tradition usually accept the wider approach to property by not focusing on the tangibility requirement of a property object. In jurisdictions like South Africa that follow the Roman-Germanic

¹⁶⁴ Van der Merwe CG *Sakereg* (2nd ed 1989) 54.

¹⁶⁵ Van der Merwe CG *Sakereg* (2nd ed 1989) 56.

tradition, this is much more of an issue and corporeality tends to be a requirement for accepting an object of property as being a thing. However, it is possible to argue that by looking at modern developments in South Africa and the rest of the traditional Roman-Germanic jurisdictions, the requirement of tangibility of a thing is not as important anymore due to the large number of exceptions to the rule as well as scholarly arguments and the changing needs of society.

To conclude, the chances for recognition of virtual property in Anglo-American common law should be very good since it will just require a good justification. This is due to the wider meaning of “property” in the Anglo-American private law traditions. Therefore, it would not be difficult to include virtual property as part of Anglo-American property law and virtual property could be protected against both private or state interferences in private and constitutional law.

In Roman-Germanic civil law the chances of virtual property being recognised under private law is slightly more nuanced. Because of the focus on the objects of property in the Roman-Germanic tradition, “property” is usually narrowly interpreted and associated with tangible things. However, the recent trend in South African law that recognises certain exceptions to this, as well as the number of arguments for the widening of the definition in general, could allow for recognition of virtual property in private law. However, this is more likely to happen if the right to virtual property is recognised and protected in legislation. Because of the fact that property is defined much wider under constitutional law than under private law in the civil law systems, one can conclude that it is possible to protect virtual property in constitutional law,

even if it is not recognised in private law, in both Anglo-American and Roman-Germanic legal systems.

This leads to the next section where the real world concept of property will be applied to virtual property.

5 3 The virtual world concept of property

5 3 1 Introduction

5 3 1 1 Introduction

The confusion surrounding the meaning of virtual property resembles the confusion over the meaning of the term “property”, which stems from the different uses of the term by lay, legal and economic users of the word.¹⁶⁶ Nelson differentiates between these meanings as follows: Laymen view property in terms of the ownership and possession of objects and things. Lawyers tend to view property in terms of rights to a thing and the related “bundle of rights” definition. Economists use “property” interchangeably with “entitlements” and tend to focus on the relationships between people. Economists include the following in their definition of property: rights to things and land, liability stemming from tort, as well as obligations to others arising

¹⁶⁶ Nelson JW “The Virtual Property Problem” 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 5.

from contractual agreements.¹⁶⁷ At least some lawyers would not consider the last two categories, or even all rights in the first category, as property. In addition to these differing meanings, one encounters the problem that real world law tends to focus on tangible objects (with some exceptions), especially in continental civil law systems.¹⁶⁸ It is due to this focus on tangibility that property in a virtual world seems to be generally disregarded by lawyers. However, this focus on tangibility is not the be-all and end-all of the matter and there are a number of exceptions as well as possible developments that could apply to the issue at hand.

The concept of property exists in the virtual world.¹⁶⁹ As soon as the conceptual barrier¹⁷⁰ of the virtual world is breached and a player immerses herself into the world via her avatar (which is often a very intimate and personal representation of herself), the virtual property becomes “real”.¹⁷¹ It is transmuted from an abstract binary representation stored on the servers of the developers and becomes (virtually) tangible to the player who interacts with it via her avatar. Take for example a special, scarce and often valuable sword that a player has managed to acquire by putting a lot of time, effort and money into the playing of the game. The player would

¹⁶⁷ Nelson JW “The Virtual Property Problem” 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 5.

¹⁶⁸ See the discussion in chapter 2 above at 2.3.1.

¹⁶⁹ Van Erp JHM “Servitudes: The Borderline between Contract and (Virtual) Property” in Van Erp JHM & Akkermans B *Towards a Unified System of Land Burdens* (2006) 1-9 at 4.

¹⁷⁰ The conceptual barrier refers to the abstract barrier that divides the real world and the virtual world. See 5.3.1.4 below for a more comprehensive discussion.

¹⁷¹ This concept is discussed in more detail below at 3.1.4.

view the sword primarily as a (virtually tangible) thing, which is secondarily located in a virtual world.

In previous chapters, the nature of virtual worlds was discussed. The interaction between the player, the virtual world and virtual property was also investigated. But what is this “virtual property”? The term is used quite regularly in both the popular media and academic discussions, but its meaning remains vague and will vary depending on the context of the discussion.¹⁷² To answer this question, I will look at the meaning of virtual property as it is usually discussed in the bulk of academic literature, most of which originates from the United States. Fairfield wrote the seminal work on virtual property, where he determines and discusses a number of characteristics of virtual property.¹⁷³ By making use of these characteristics, he narrows down the definition of what should be classified as virtual property and on that basis, he concludes that virtual property is analogous to things (physical objects) in the real world. He claims that virtual property needs to have three characteristics.¹⁷⁴ These are that virtual property must be rivalrous, persistent and

¹⁷² The confusion surrounding the term also mirrors the differing approaches to real world property as discussed above, being either narrow or wide as well as either focusing on or disregarding the aspect of tangibility. See the discussion above in chapter 2 at 2.2.

¹⁷³ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102.

¹⁷⁴ For the analysis I rely heavily on Barfield’s discussion of the characteristics: Barfield W “On Money, Taxes, and Property in Virtual Reality” 2008 *Springerlink online article* no 10.1007/s10055-008-0097-7.

have interconnectivity.¹⁷⁵ Apart from these three characteristics, Blazer has added two *indicia*¹⁷⁶ to Fairfield's three characteristics. Blazer's two *indicia* are that for virtual property to exist there must be secondary markets and that there must be value-added-by-users (sic).¹⁷⁷ These *indicia* are not essential to the existence of virtual property, but they can be used as points of reference to help determine whether a virtual property interest is deserving of being protected as property.

5 3 1 2 The three levels of virtual property

There are a number of levels within which one can categorise or discuss virtual property and depending on the specific level of virtual property that is used in the discussion, the content of the term will vary.

Abrahamovitch proposes three levels where property can possibly be identified within virtual worlds.¹⁷⁸ At the first level, one encounters the core of the virtual world,

¹⁷⁵ These characteristics sound familiar because they are similar to the requirements that are needed for a virtual world to exist. See the discussion about the essentialia of a virtual world in chapter 2 above at 2.4.

¹⁷⁶ Blazer C "The Five Indicia of Virtual Property" (2006) 5 *Pierce LR* 137-161 at 142 accepts the three characteristics proposed by Fairfield, but argues that they can also be used as *indicia* to help determine if something is protectable as virtual property. Because of this he lists five *indicia* of which the first three are identical to the three characteristics of Fairfield and adds two more *indicia* to this list.

¹⁷⁷ Blazer C "The Five Indicia of Virtual Property" (2006) 5 *Pierce LR* 137-161 at 142.

¹⁷⁸ Abrahamovitch SH "Virtual Property in Virtual Worlds" *Gowlings.com* 2009 at <https://docs.google.com/viewer?url=http://www.gowlings.com/knowledgecentre/publicationPDFs/TLI-2009-Susan-Abramovitch-Virtual-Property-in-Virtual-Worlds.pdf> (14 June 2010) 1-2 at 2.

where all virtual property is just computer code¹⁷⁹ and ultimately protected by copyright law. At the second level, there are identifiable objects or items inside the virtual world. These items resemble real world items and comprise of objects like avatars, swords, buildings, clothing, cars, houses and just about any other type of valuable object that one can imagine. These items are the virtual world's equivalent of those same items in the physical world. At the third level, it becomes possible to identify in-game virtual property as intellectual property. An example of this would be a book that is found lying on a table inside the virtual world. While the book itself is a (virtually) tangible form of property object that exists at the second level as described above, the book also represents a tangible representation of the copyright in the book.¹⁸⁰ Abrahamovitch mentions another example to illustrate this point. A clothing range is designed and sold inside a virtual world. The designer or creator can hold intellectual property rights in the form of designs or trademarks inherent in the clothes, while at the same time a player can own the "physical" embodiment of the

¹⁷⁹ It could be argued that a player's account (or his collective virtual world patrimony) could also fit into this first level. The protection would then not be afforded by copyright, but rather by means of the contractual agreement between player and developer. The virtual world patrimony could also be seen to be another distinct form of immaterial property that could be capable of separate proprietary protection.

¹⁸⁰ Abrahamovitch SH "Virtual Property in Virtual Worlds" *Gowlings.com* 2009 at <https://docs.google.com/viewer?url=http://www.gowlings.com/knowledgecentre/publicationPDFs/TLI-2009-Susan-Abramovitch-Virtual-Property-in-Virtual-Worlds.pdf> (14 June 2010) 1-2 at 2.

items of clothing in the range.¹⁸¹ This example could also be applied to the differentiation between the intellectual property rights that a developer holds in the creation, content and software of the virtual world, while at the same time players might have other rights in the in-world physical embodiment of objects in the world.¹⁸²

5 3 1 3 Is virtual property just a form of intellectual property?

Because virtual property is intangible and immaterial, it is often classified under the heading of intellectual property and continues to be governed under the law of intellectual property.¹⁸³ This regime works by allocating the initial rights to intellectual property holders and any subsequent rights are normally governed by licence

¹⁸¹ Abrahamovitch SH “Virtual Property in Virtual Worlds” *Gowlings.com* 2009 at <https://docs.google.com/viewer?url=http://www.gowlings.com/knowledgecentre/publicationPDFs/TLI-2009-Susan-Abramovitch-Virtual-Property-in-Virtual-Worlds.pdf> (14 June 2010) 1-2 at 2.

¹⁸² Abrahamovitch SH “Virtual Property in Virtual Worlds” *Gowlings.com* 2009 at <https://docs.google.com/viewer?url=http://www.gowlings.com/knowledgecentre/publicationPDFs/TLI-2009-Susan-Abramovitch-Virtual-Property-in-Virtual-Worlds.pdf> (14 June 2010) 1-2 at 2.

¹⁸³ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1050. See in general Hurter E “The International Domain Name Classification Debate: Are Domain Names ‘Virtual Property’, Intellectual Property, Property, or No Property at All?” (2009) 42 *CILJSA* 287-308 at 288, 289; Nelmark D “Virtual Property: The Challenges of Regulating Intangible, Exclusionary Property Interests Such as Domain Names” (2004) 3 *NW J Tech & Intell Prop* 1-23 at 1, 7; Stephens M “Sales of In-Game Assets: An Illustration of the Continuing Failure of Intellectual Property Law to Protect Digital-Content Creators” (2002) 80 *Texas LR* 1513-1534; Methenitis M “Alternative IP and Economic Structuring for MMORPGs” 2007 *Law of the Game* at <http://lawofthegame.blogspot.com/2007/05/alternative-ip-and-economic-structuring.html> (22 May 2009).

agreements like EULAs.¹⁸⁴ The result of this regime is that emerging virtual property rights have been systematically eliminated by holders of intellectual property rights by making aggressive use of EULAs to prevent players from acquiring any property rights in virtual worlds.¹⁸⁵

However, although virtual property is intangible and immaterial, it does not always fit properly into the general description of intellectual property.¹⁸⁶ As was mentioned above,¹⁸⁷ all virtual property can be classified as intellectual property at the first level of virtual property. In many instances, the categorisation and classification of virtual property as intellectual property will also work at the third level of virtual property, but it would depend on the nature and identity of the virtual property interest (that is the object of the purported property right). In other words, types of virtual property interests that are governed by intellectual property rules are generally distinguishable from each other by looking at the level of rivalrousness¹⁸⁸ (or the lack thereof) of the property in question.

Virtual property always consists of binary building blocks. In other words, at the most basic level, all virtual property consists of a combination of digital computer

¹⁸⁴ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1050 fn 6.

¹⁸⁵ See also the discussion of this issue in chapter 3 above at 3.6.

¹⁸⁶ Except, possibly, at the third level mentioned above.

¹⁸⁷ See the discussion above at 5.3.1.

¹⁸⁸ Fairfield states that “intellectual property protects the creative interest in non rivalrous resources”: Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049. A more in-depth discussion of this aspect follows in below at 5.3.3.2.

code comprising of ones and zeroes. As Fairfield notes, much of computer code is very close to just being an idea.¹⁸⁹ Normal computer programs or computer code will comfortably fit into the surrounding framework provided by intellectual property law because they are usually designed to be of a non-rivalrous nature. In fact, it is accepted that this is indeed the case for most code-based programming and software in general. In other words, one person's use of the code does not stop another person from using it. For example, if a programmer creates a new program that is used for accounting purposes, it can be copied and sold or licenced, over and over again, without affecting the value or nature of the software. In fact, the more copies of this non-rivalrous code that are created and dispersed for the financial benefit of its owner, the better it would be.¹⁹⁰

From an economic viewpoint, Posner explains this process in the following illuminating manner:

“Intellectual property is characterised by heavy fixed costs relative to marginal costs. It is often very expensive to create, but once it is created the cost of making additional copies is low, dramatically so in the case of software, where it is only a slight overstatement to speak of marginal cost

¹⁸⁹ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1048.

¹⁹⁰ This type of computer code is usually non-rivalrous and consequently the fact that one person uses the computer code will not stop someone else from being able to use it. If this is the case, this computer code will quite correctly be protected by the law of intellectual property. Intellectual property is of special use where the property is non-rivalrous, because it enables the creators of these types of property to recoup their investment costs. Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1048.

as zero. Without legal protection, the creator of intellectual property may be unable to recoup his investment, because competitors can free-ride on it; and so legal protection can expand output rather than, as in the usual case of monopoly, reduce it.”¹⁹¹

Traditionally, domain names (and by association email addresses) have been protected and regulated under the intellectual property law regime of trademark law.¹⁹² The reason for this is that the current trademark owners who already have a vested interest and strong financial incentive to protect their brand names and goodwill are pursuing and protecting their own interests. They do this by means of lobby groups and cleverly created licensing contracts (like EULAs) to prevent the acceptance of normal property rights for domain names.¹⁹³

Moringiello¹⁹⁴ explains how and why it is problematic to equate virtual property to intellectual property. Typically, when lawyers hear the term virtual property, they immediately think of intellectual property. Courts tend to think in the same way. She mentions the United States domain name case of *Dorel v Arel*,¹⁹⁵ which dealt with the following question: Can a judgement creditor reach a domain name by means of garnishment? The problem in this case was that only a property right could be

¹⁹¹ Posner R “Antitrust in the New Economy” 2000 *U Chicago Law & Economics, Olin Working Paper No. 106* at <http://ssrn.com/abstract=249316>.

¹⁹² Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1050. See also Hals T “GM Stakes Virtual Property in Case of Bankruptcy” 2009 *Reuters* at <http://www.reuters.com> (05/10/2009).

¹⁹³ See the discussion about EULAs in chapter 3 above at 3.6.

¹⁹⁴ Moringiello J “More on what Virtual Property can do for Property: The Problem of Analogy” 2008 *PropertyProf Blog* at http://lawprofessors.typepad.com/property/virtual_property/ (05 October 2009).

¹⁹⁵ *Dorel v Arel* 60 F Supp 2d 558 (Ed Va 1999).

garnished under the applicable statute. To make the outcome fit the facts, the Court looked to trademark law for help. The Court concluded that if a domain name is eligible for trademark protection, it is seen as property and as a consequence, garnishable. If it is not eligible for trademark protection, it is not property and not garnishable. Moringiello explains the problem in the following way: If a domain name is eligible for trademark protection, it cannot be transferred without the goodwill of the business to which it is attached and as a result is of nearly no use for the creditors. On the other hand, a generic domain name that is incapable of being protected by trademark law can be extremely valuable to creditors, since it can be transferred for a substantial amount of money.¹⁹⁶ Because the domain name was forcibly squeezed in under the category of a trademark, it lost all its value for the creditors. Consequently, it is necessary to look at redefining it as a virtual property right that is capable of existing on its own. The problem that should be identified here is the fact that disputes that take place only in a virtual world tend to mirror disputes that take place in the real world. Consequently, they tend to be solved in the virtual world in a manner analogous to the way in which the real world would have dealt with them. In order to deal with disputes relating to virtual world assets in the real

¹⁹⁶ To understand this, one needs to keep in mind that the company has gone bankrupt. Once a company has been declared bankrupt or even if a rumour about such an incident starts to circulate, one will find that the goodwill pertaining to the company quickly dissipates. No-one would be interested in buying the non-generic domain name of a bank that has gone bankrupt. On the other side of the coin, if the company in question had a generic domain name such as business.com, it could have made a tidy sum of money. Business.com recently sold for \$7.5 million USD.

world, one should ignore the fact that it only deals with intangibles. Moringiello sums it up by saying that tangibility should not be a determining factor when dealing with virtual property and that one should rather concentrate on the other aspects of property rights.¹⁹⁷

Fairfield argues convincingly that virtual property is a distinct type of property separate from intellectual property.¹⁹⁸ A parallel can be drawn between traditional and virtual property by looking at the three characteristics of rivalry, persistence and interconnectivity.¹⁹⁹ Even though it is accepted that virtual property is somehow “different”, current holders of intellectual property rights have been systematically eliminating the emergence of new virtual property rights by means of the use of EULAs.²⁰⁰ It is important to prevent this stranglehold that the current IP-rights holders have over virtual property because it results in the ineffectual use of virtual property.²⁰¹ If it was accepted that virtual property is distinct from intellectual property it would lead to standardisation of virtual property interests and rights.²⁰² This will

¹⁹⁷ Moringiello JM “More on what Virtual Property can do for Property: The Problem of Analogy” at http://lawprofessors.typepad.com/property/virtual_property/ 2008 *PropertyProf Blog* (05 October 2009).

¹⁹⁸ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049.

¹⁹⁹ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1050.

²⁰⁰ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 138.

²⁰¹ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1050.

²⁰² Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1050.

eventually lead to lower search costs and limit the unnecessary fragmentation of property rights.²⁰³

To conclude, the classification of virtual property as a part of intellectual property is a very technical one when it refers to virtual property in the broadest sense. The most prominent determining factor seems to be the question of whether the virtual property is rivalrous or not.²⁰⁴ If something is seen as virtual property and is non-rivalrous, then it would normally form part of and be protected by intellectual property. If it is clearly rivalrous, then it ought to be capable of being classified as “proper” virtual property and be protected as such. It is also easier to apply intellectual property to virtual property when it is viewed from the third level of virtual property as discussed above.²⁰⁵

²⁰³ As is usually the case, when standardisation and limitation of categories of property rights occur, the search costs related to determining ownership and interests in property are lowered. This, of course, relates to the *numerus clausus* principle. See further Merrill TW & Smith HE “Optimal Standardisation in the Law of Property: The Numerus Clausus Principle” (2000) 110 *Yale LJ* 26-34 and Heller MA “The Tragedy of the Anticommons: Property in Transition from Marx to Markets” (1998) 111 *Harv LR* 640-642.

²⁰⁴ This is discussed in 5.3.3 below which deals with the characteristics of virtual property.

²⁰⁵ See section 3.1.3 above.

5 3 1 4 Crossing the conceptual barrier

Looking at a virtual world from the perspective of the real world is a little bit like Alice looking down the rabbit hole.²⁰⁶ The hole represents the conceptual barrier between the real and the virtual world. After Alice enters into Wonderland, she is immersed into the (virtual) environment of Wonderland and her perception of the surrounding things, area and property is not defined as impossible, non-existent or virtual, but rather as real as the world outside. For Alice, the Mad Hatter's teapot really exists. Alice sees the teapot as the property of the Hatter. If Alice picks it up, she has physical control over it and can carry it away, destroy it, use it or give it to someone else. In much the same way, a player who participates in a virtual world makes a conscious decision not to rationalise all her actions or to be hampered by holding on to reality. She decides to ignore the virtual characteristic of the environment and perceives the virtual world as a reality, as long as she is spending time inside it.²⁰⁷ This barrier between the real and virtual world is constantly shrinking and one of these days it will no longer be necessary to consciously decide that the virtual world is real.²⁰⁸ One would rather need to take the conscious decision to realise that the virtual world is *not* real while participating in it.

²⁰⁶ Carroll L. *Alice in Wonderland* (1865).

²⁰⁷ Also see the discussion about game conceit in chapter 4 above.

²⁰⁸ This is due to the fast pace of the development of virtual reality immersion technology. Also see chapter 2 above at 2.3 for a discussion of this aspect. The public's imagination is currently being bombarded with the images and ideas concerning virtual reality through popular media and entertainment. Here is a short list of examples where the philosophical and theoretical issues behind

The boundary between the real and virtual world should be regarded as permeable. This boundary or barrier is what I would like to refer to as the “conceptual barrier.” Dedicated players do not seem to have any problem with regarding something as their property even if it only exists on a server in some unseen location. The player tends to regard the sword used by her avatar as having the same function and value as a real sword, unhampered by the conceptual barrier between the real and virtual worlds. In fact, this barrier is so permeable that she tends not to notice it. Because the sword functions as a real sword from the perspective of the player’s avatar and the player identifies with the avatar as a physical extension of herself, the player perceives the sword to be real. She believes

virtual worlds have been used as the subject of films: *The Lawnmower Man* (1992); *Brainscan* (1994); *Avatar* (2009); *Caprica* (2009); *Star Trek* (2009); *Gamer* (2009); *Ghost in the Machine* (1993); *The X-Files (First Person Shooter) s7e13* (2000); *The Matrix* (1999) and many more. Apart from all these fictional accounts of virtual world immersion, real life is gaining fast. Researchers in Japan have created a brain-computer interface that they can use to control their *Second Life* avatars without moving a muscle. See Mo “Brain-computer Interface for Controlling Second Life Avatars” 2007 *ScienceBlogs* at http://scienceblogs.com/neurophilosophy/2007/10/braincomputer_interface_for_co.php (03 Nov 2010); Keio University “Using Brainwaves to Chat and Stroll through Second Life: World’s First” 2008 *ScienceDaily* at <http://www.sciencedaily.com/releases/2008/06/080613163213.htm> (03 Nov 2010). While the aforementioned interface was just taking shape in 2007, another version was released at the CeBIT 2010 conference called the g.BCIsys Brain Computer Interface Solution, made by the Austrian company Guger. See Lugmayr L “Brain Interface Controlling Second Life Avatar Debuts at CeBIT 2010 [Video]” 2010 *I4U News* at <http://www.i4u.com/34197/brain-interface-controlling-second-life-avatar-debuts-cebit-2010-video> (03 Nov 2010); Lugmayr L “Brain Computer Interface for Spelling Words and Controlling the House” 2009 *I4U News* at <http://www.i4u.com/26422/brain-computer-interface-spelling-words-and-controlling-house> (03 Nov 2010).

that she possesses the sword (via her avatar) and has physical control over it. Another good illustration of this barrier is the analogy between virtual world (games) and the film *The Matrix*. Everything inside the Matrix really exists from the perspective of the person who is immersed in the Matrix. Even when the lead character Neo learns the truth about the virtual nature of the Matrix, he still perceives the computer generated environment within the Matrix as being real and physical while he is participating in the virtual world.²⁰⁹

The importance of recognising both the existence of, and the effects of the conceptual barrier lies in the way in which virtual property items function inside a virtual world. Essentially the only difference between a chair in the real world and one in the virtual world is that the player cannot directly physically interact with the chair. However, his avatar can directly²¹⁰ interact with the chair, and to the avatar the chair is not an intangible, but rather a tangible thing. If the only difference between a

²⁰⁹ This example from a sci-fi movie might seem far-fetched at the moment, but considering the exponential innovation and development curve that society is experiencing with the technology of immersion into virtual worlds, it might be just a matter of time before the conceptual barrier is broken down and players can interact at a perceived physical level with their virtual environment and property. In fact, the level of immersion currently achievable is in many instances already so far advanced that it is nearing the goal of total immersion. In the IMAX 3D documentary about the international space station, called *Space Station 3D* (2002), the audience gets to experience (at least from an audio-visual perspective) the exact same simulation that an astronaut gets when using virtual reality to practice space-walking. The astronaut of course also benefits from the biofeedback and tactile cues of operating the equipment, so for them it is even more immersive. In this example the astronaut needs almost no conscious decision to believe the alternative environment is real, due to the thinning conceptual barrier. Also see chapter 2 above at 2.3.

²¹⁰ Directly (and physically).

real chair and a virtual one is the incorporeal nature of the virtual chair, I suggest that they be treated equally and that the intangibility should either be regarded as an exception to the rule or ignored.²¹¹

5.3.2 The subjects and objects of virtual property

As in the real world, the virtual world also has its share of legal subjects and objects. These subjects and objects can sometimes be found in the real world, the virtual world, or in certain instances, in both at the same time. Who would then be the subjects of virtual property rights? On the one hand, these would include the avatars or virtual people who participate in the game, even though the avatar could also be the object of a virtual property right. Non-playing characters²¹² (NPCs) could also be classified as subjects of virtual property rights. Outside of the virtual world, the player could be classified as a subject of virtual property rights. The game developers and interested third parties, like creditors (of both players and developers) are capable of being classified as subjects of virtual property rights²¹³ in addition to the player.

²¹¹ See the discussions about intangibility above at 5.2.3.1 and below at 5.3.4.2.

²¹² Non playing characters (NPC's) are characters inside a virtual world that form part of the population of the virtual world but who are not directed by players in the real world. They are controlled by the game-code as a part of the game's infrastructure.

²¹³ An interesting question is whether avatars can be subjects of real world property rights? While it is clear that they can be subjects of virtual property, the assigning of natural person status to them in the real world is a contentious issue with legal, social and philosophical implications. It is interesting to note that there is a number of academics doing research in this field as well as a movement that is

The following subjects²¹⁴ (of various virtual property rights)²¹⁵ can be identified inside a virtual world: the developer, the player's avatar, other players' avatars, the developer's avatars and non-playing characters (NPC's). Apart from the developer, all of the above subjects are virtual world natural persons.²¹⁶ However, it does sometimes happen that juridical persons are created and encountered inside virtual worlds with an independent legal identity to those of its members. The two most prominent examples of this are guilds and banks.

Outside of the virtual world, many of the same subjects are found, albeit sometimes in different guises. As in the virtual world, one would also encounter the developer, player, other players, and interested third parties (creditors, banks, shareholders, governments, executors.²¹⁷

campaigning for the recognition of cyborg and avatar rights. For more information about this see Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 51-71.

²¹⁴ These are possible subjects of virtual property rights in general. The identity of the subjects would of course depend on the different types of virtual property rights that are encountered in a virtual world.

²¹⁵ See the discussion about virtual property rights in chapter 6 below.

²¹⁶ Of course, in a virtual world the an avatar can appear to look as an animal or any other fantastical creature. This would mean that if an avatar has the appearance of an animal in a virtual world, that "animal" would be a legal subject – but only if controlled by a player in the real world.

²¹⁷ These subjects would once again be determined by the type of right with which they are associated. For example, the developer would be the subject of both virtual property rights (in the virtual objects) as well as the intellectual property rights associated with the code of the game. The player would have a virtual property right in his avatar as well as the complete virtual world patrimony signified by his or her account. Additionally, the player could also have intellectual property rights in

In certain instances, the same subjects are simultaneously found inside and outside the virtual world.²¹⁸ The identity of these subjects will change depending on the perspective from which they are viewed, as well as their relation to the virtual property in question. The most prominent examples of such subjects would be the developer, the player and third party players. The developer maintains the status of a juridical person in the real world, but at the same time also in the virtual world. The developer is also represented inside the virtual world by avatars of its employees who have the status of natural persons inside the virtual world. The player is a natural person in the real world, but is regarded as a fiction inside the virtual world, represented by his or her avatar. The player's avatar is considered to be the natural person inside the virtual world, although the avatar is often regarded by the player as an extension of the player's natural persona in the real world. The same goes for other players' avatars that are regarded as natural persons inside the virtual world, separate from their controlling players in the real world.

Various objects can be described as virtual property. Examples include, but are not limited to electronic chattel paper,²¹⁹ email addresses,²²⁰ websites,²²¹ bidding

various items that he or she created in or uploaded to the virtual world (such as a copy of a song that he or she wrote or a digital family picture that hangs on the wall in the player's virtual home.

²¹⁸ With reference to the same rights.

²¹⁹ With this example Fairfield identifies electronic chattel paper by means of how it is described in the US Uniform Commercial Code (UCC) (2001) art 9 § 9-105 with regard to the rules that govern perfection of chattel paper by possession. He notes that the UCC "describes an infrastructure under which electronic chattel paper may be meaningfully 'possessed' for perfection purposes." The

agents, video game characters or any number of other digital commodities that are intangible. However, inside the virtual world one finds that the most basic of these (and the main topic of discussion in this dissertation) is the virtual world “thing”. In laymen’s terms, the term *virtual property* would refer to the objects of virtual property. These are the items that players encounter and use by means of interaction between them and their avatars as well as the virtual world. In the same way in which the discussion on interactivity²²² attempted to define the varied relationships between objects and subjects, the objects of virtual property tend to stand as a prominent feature in the discussion about virtual property rights and interests. People tend immediately to identify with the fact that a person can view the sword used by his character in a game as virtual property. The first subcategory of the objects of virtual property would refer to things, or rather movable tangible virtual items. There are other categories as well, such as virtual immovable property or objects such as houses, castles, land²²³ as well as intellectual property objects.

electronic chattel paper must be capable of only being possessed by one person, it must be persistent in maintaining its value and must be freely tradable to other people. See Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1058.

²²⁰ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1055.

²²¹ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1055.

²²² See chapter 2 above at 2.4.5.

²²³ In certain games there are even slaves that are regarded as the property of the player (see the discussion about slavery in virtual worlds at 3.4.3 below). A player’s avatar could also be defined as an object of a property right, but only if viewed from the cross border perspective in the real world. In other words, a player has the options of approaching his or her virtual property objects from differing perspectives. The differences will be apparent by determining who the subject of a virtual property

5 3 3 *The characteristics of virtual property*²²⁴

5 3 3 1 Introduction

“Many Americans use ‘it’ every day. Although it is intangible, it may be worth thousands of dollars. Because we can both control it and prevent other people from controlling it, we assume, without much thought, that we own it. Sometimes we pay someone a monthly fee to hold it for us. Sometimes, simply by using it, we increase its value. When we finish using it, we often sell it.”²²⁵

This introduction by Barfield mentions a number of important issues that are associated with virtual property. The first important issue is that even though it is intangible, it has a measurable economic value. The second issue relates to the fact that people who encounter and use virtual property are usually in control of the property and can exclude others from interfering with their virtual property. This leads to the perception by most players that they are the owners of “their” virtual property. The last two issues, the increase in value while the property is being used, together

interest will be. When a player is the subject, the virtual world account (encompassing his or her whole virtual world patrimony) can be viewed as an object of property law. Alternatively, he or she (as subject) can view his or her avatar as the object (and not subject) of virtual property. Then the player as subject can view the virtual thing as an object (if one assumes that the player can step into the shoes of the avatar) he or she can view the virtual item as an object of property law.

²²⁴ In the following section I rely heavily on the work of Barfield W “On Money, Taxes, and Property in Virtual Reality” 2008 *Springerlink online article* no 10.1007/s10055-008-0097-7; Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102; Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161.

²²⁵ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 137.

with the ability to sell the virtual property afterwards, reinforce the proprietary feelings of players towards virtual property.

But how does this help one to determine if something can be called virtual property or not? As with real world property, there have been attempts to define the concept of virtual property and this section describes how Fairfield proposed a definition of virtual property that is wider than the traditional Roman-Germanic private law approach to property, but narrower than the much wider constitutional property concept that is generally used in both the Roman-Germanic and Anglo-American traditions.²²⁶ This definition of virtual property has become quite popular in the literature and most authors who discuss this topic now take both the definition and the list of characteristics that Fairfield has determined for virtual property as the *de facto* standard to determine if something is virtual property or not. I included it here in my discussion due to the prominence of this definition in the field of virtual property and as an alternative method of identifying and using the virtual property concept. Although the concept relates to a virtual object, the characteristics tend to revolve around the competencies of the rights relating to that object. This is illustrated by Blazer who defines virtual property as “a legitimate property interest including reasonable expectation of legal protection”.²²⁷

²²⁶ See 5.2.2 above.

²²⁷ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 139.

In order to help identify these protectable virtual property interests, Fairfield provides a legal analogy between traditional and virtual property interests. However seen together with the significant economic value that virtual property inherently holds, Blazer proposes two *indicia* in addition to the three characteristics proposed by Fairfield. The result is that there are three characteristics, namely rivalry; persistence; and interconnectivity; as well as two *indicia*: secondary markets; and value-added-by-users.

I find that Fairfield's characteristics are already sufficient to identify virtual property, but Blazer suggests that the two *indicia* added to the characteristics will be helpful when it is difficult to make a decision in borderline cases. Virtual property cannot exist without having all three characteristics. Blazer's two *indicia* help to illustrate how virtual property integrates into the general social environment and how it functions. He points out that even though Fairfield's three characteristics quite convincingly equate virtual property with traditional property, the analogy is not always perfect. While a person can own land or an interest in land, in most cases the existence of virtual property will depend on the on-going provision of certain services by a developer.²²⁸ In other words, the player is unable to control, use or own any virtual property without having to rely on the developer to supply a mechanism for

²²⁸ Blazer C "The Five Indicia of Virtual Property" (2006) 5 *Pierce LR* 137-161 at 140.

ensuring the persistence²²⁹ of her virtual property.²³⁰ In other words, to put it in the context of virtual worlds, a player has access to her virtual property as a result of the fact that the developer made an initial and continuous investment in the creation and provision of both the virtual world and the method of getting access to the virtual world. It follows from this that without the co-operation of the developer, a player would really have no property – any virtual property, however abstract, would cease to exist.

5 3 3 2 Rivalrousness/ Excludability²³¹

In the physical world the rivalrousness of property lets the owner of objects exclude other people from it.²³² In much the same way, the rivalrousness or excludability of

²²⁹ In other words, the developers have to ensure that they create and maintain the virtual world as well as the servers it is hosted on, in order to make both the virtual world and the property in it persistent. The characteristic of persistence is discussed more fully in chapter 2 above at 2.4.3.

²³⁰ In this regard, the nature of virtual property already differs from real world property due to the fact that virtual property is almost never capable of existing without the co-operation of others. Examples of property that function in the same way can be found in the real world. One example that comes to mind is that of the patrimony held in a traditional bank account. In such a case, the customer has to rely on his bank to ensure the persistence of his property held by the bank. However, even though bank accounts are traditionally regarded as intangible property, bank accounts may be regarded as being one of the earliest forms of virtual property. See Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1057. Bank accounts are regarded as property in common law and constitutional law, but not in civil law private law, where they are seen as personal rights, for exactly the reasons discussed above.

²³¹ See in general Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1053 and Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 143.

virtual property refers to the instance where only one person owns and controls a specific piece of virtual property. Consequently, he or she can exclude others from doing the same.²³³

Fairfield deals with the concept of rivalrousness as follows:

“We often desire the power to exclude in cyberspace too, and so we design that power into code. By design, we make code that can only be possessed by one person. Thus rivalrousness exists also in code. If one person controls rivalrous code, nobody else does.”²³⁴

A good example of general rivalrous virtual property is an email address. An email address will qualify as a form of virtual property because while one person is using²³⁵ the email address for personal use, everyone else is excluded from using that same address as his or her own email address. No two people can have the

²³² Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1053. See also Merrill TW “Property and the Right to Exclude” (1998) 77 *Neb L Rev* 730-755 at 730 who views the right of exclusion as the *sine qua non* of property rights. Also see Gray K “Property in Thin Air” (1991) 50 *CLJ* 252-307 at esp 268-269.

²³³ Excludability and rivalry, when applied to virtual property and intellectual property in this sense, refer to a type of physical excludability. While people can be excluded from using the intellectual property of someone else by making use of the “fictional” exclusion afforded by legislation, the owner of intellectual property cannot physically (from a physics perspective) prevent more than one person from making use of it. In contrast to this physical non-excludability of IP, virtual property is designed to be “physically” excludable when someone is making use of it.

²³⁴ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1054.

²³⁵ By making use of “using” here I refer to usage in the sense of being in control of it. In other words this would not include the scenario where I “use” the email address that someone else has provided me for contacting them.

same email address.²³⁶ Others may of course send email to that address, but only the user of the address will be able to exert control over it.

In another example, the sword that a player acquired in *World of Warcraft* is viewed as rivalrous property in a virtual world. While the player possesses the sword, no other player can use that same sword, and in many cases no other similar swords exist in the game. The code that the sword is created from in this case determines the exclusionary nature of the sword and contributes to the property value of it.

As mentioned above, rivalrousness is the determining factor that separates virtual property from other forms of immaterial property, and in particular, from intellectual property.²³⁷ In other words, any immaterial property that is not rivalrous cannot be classified as virtual property. As such, intellectual property is normally intangible and non-rivalrous, whereas virtual property tends to be intangible and rivalrous.²³⁸ While the use of virtual property is therefore limited by the fact of its rivalrousness, the use of intellectual property is limited by the application of exclusionary rights that are enforced by legal means. There are also some forms of virtual property that can be described as “semi-rivalrous.”²³⁹

²³⁶ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1055.

²³⁷ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 143.

²³⁸ See above at 5.3.1.1; 5.3.1.3.

²³⁹ Blazer gives the example of many people who simultaneously share control of a remote database. He suggests that the protection afforded to individual users decreases as the public accessibility of a vital resource increases. For a more detailed discussion see Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 144.

5 3 3 3 Persistence

The second characteristic, persistence, goes hand in hand with the persistence requirement for virtual worlds. If a piece of virtual property is persistent, it means that it does not cease to exist or disappear permanently when a virtual world player logs out of the virtual world or turns her computer off. It is coded to be persistent and as such does not fade after each use or run only on a single computer.²⁴⁰ If the property were not persistent, then no one would be willing to invest in the acquisition of the property and it would become valueless. This correlates with the *essentialia* of persistence in a virtual world. If the virtual world is not persistent, there will not be any persistent virtual property in that world. Conversely, a virtual world is made up out of virtual property and if the property is not persistent, the virtual world would not be persistent either because it would be constantly changing.

Persistence is also the inherent characteristic of traditional property that ensures that property is maintained in a generally unchanged fashion while it is not being used.²⁴¹ Blazer uses the example of a car that is parked and left alone by its owner at the beginning of the day. While the owner is away, the car does not cease to exist, and the owner harbours a reasonable expectation that the car will still exist (and be subject to his control) when he returns later that day. The car does not vanish and

²⁴⁰ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1054.

²⁴¹ Blazer C "The Five Indicia of Virtual Property" (2006) 5 *Pierce LR* 137-161 at 144.

cease to exist.²⁴² Virtual property is persistent even though it is intangible.²⁴³ An email account can be used to illustrate this. Even though the user of the email account only logs onto the servers once every now and then (and sometimes even not for weeks at a time), the user relies on the persistent nature of the email account to store her information until she deletes it. Fairfield attributes this persistence to the distributed nature of online computing.²⁴⁴ Because the email is hosted on multiple servers, the risk of loss of property decreases. Blazer notes that the persistent nature of an email account induces reasonable reliance and increases the user's property interest in the account, thereby increasing the justification for the equitable interference with that interest. A sword illustrates this point in terms of virtual world property. Just as the player expects that her avatar would still exist in the virtual world after not having played the game for a time, she would also expect that her virtual sword that is used by her avatar would still be associated with her avatar, even though she was not logged into the virtual world and using it continuously.

²⁴² Fairfield compares this to the example that after a statute has been sculpted and placed in a city square, it is expected that the statute will remain in that same place and continue to exist for hundreds of years. Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1054.

²⁴³ See Blazer C "The Five Indicia of Virtual Property" (2006) 5 *Pierce LR* 137-161 at 144 and Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1054.

²⁴⁴ This is also referred to as "cloud computing". Cloud computing means that a user's information is stored in a general "cloud" of servers and the specific storage area is constantly changing inside the cloud. Usually the data is also duplicated to varying degrees, so that if one server fails the data is not lost, but can immediately be retrieved from elsewhere in the cloud.

5 3 3 4 Interconnectivity

The third characteristic of virtual property is interconnectivity. This correlates with the virtual world requirement of interaction.²⁴⁵ Interconnectivity enables multiple players to be online and interact within the same virtual world and making use of the same common resources. All of this must occur simultaneously. Because people can visit and use the same virtual property, the property's value is increased. A player would also want other avatars to see and experience her new house that she has created in *Second Life*. They can come, visit, and interact with her property by sitting on the couch and pouring themselves a virtual glass of wine. If there was no interconnectivity, only the player herself would see and experience her property, and that would negate the whole idea behind virtual worlds.²⁴⁶

In the real world, objects are naturally interconnected. Due to the laws of physics, two people in the same room can experience and interact with the same objects. In addition, the real world objects can affect each other.²⁴⁷ In a virtual world, code makes it possible that this characteristic can also apply to virtual objects. If my avatar holds a virtual sword, other avatars can be affected by it. They can see that I am holding it and if I decide to attack them with it, their avatars can be hurt or killed by

²⁴⁵ See chapter 2 above at 2.4.

²⁴⁶ Social interaction is one of the main features and requirements in virtual worlds. If there was no interconnectivity of property, then the social element falls away, and the virtual world becomes just a normal single player game. See chapter 2 above at 2.4.5.

²⁴⁷ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1054.

the sword. The same goes for a virtual folding chair next to a wrestling ring in a virtual world. All the players who attend a wrestling match can see the virtual chair and if one wrestling avatar should choose to hit another avatar over the head with the chair, the second avatar would surely be toppled by the blow.

Code strives to mirror these characteristics because rivalrousness promotes investment in virtual property without the fear that others may take what a person has built or gathered. Persistence protects the investment by ensuring that it lasts for a long time. As such, interconnectivity is responsible for increasing the value of virtual property due to network effects.²⁴⁸

5 3 3 5 Secondary markets

In addition to the three characteristics proposed by Fairfield,²⁴⁹ Blazer proposes two *indicia* that could be used by courts, combined with the three characteristics, to help determine whether there is a virtual property interest in a specific piece of virtual property. These two *indicia* are especially helpful to supplement the three characteristics of virtual property by looking at extrinsic factors such as the behaviour of markets and users.²⁵⁰

²⁴⁸ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1055.

²⁴⁹ Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1050.

²⁵⁰ Blazer C "The Five Indicia of Virtual Property" (2006) 5 *Pierce LR* 137-161 at 146.

A court should be alert to the fact that there could be a virtual property interest at stake as soon as a user develops or uses a secondary market²⁵¹ to facilitate trade, control of or access to remotely hosted computer code (virtual property). An example of this would be the instance where a player in a virtual world creates or bases her business on the secondary market for virtual property that is created because of the existence of the virtual world. The question of whether this secondary market is sanctioned by the developer of the virtual world should not be an important consideration for the court when determining whether to recognise a virtual property interest.²⁵²

This is an important aspect to take into consideration, because individual players and businesses have become reliant on the existence of secondary markets in virtual worlds.²⁵³ Reliance on secondary markets is often their sole method of

²⁵¹ Wikipedia defines a secondary market as follows: “The secondary market, also known as the aftermarket, is the financial market where previously issued securities and financial instruments such as stock, bonds, options, and futures are bought and sold. The term ‘secondary market’ is also used to refer to the market for any used goods or assets, or an alternative use for an existing product or asset where the customer base is the second market (for example, corn has been traditionally used primarily for food production and feedstock, but a ‘second’ or ‘third’ market has developed for use in ethanol production).” Wikipedia contributors “Secondary Market” 2010 *Wikipedia, The Free Encyclopedia* at http://en.wikipedia.org/wiki/Secondary_market (20 Oct 2010); Investopedia “Secondary Market” 2011 *Investopedia.com* at <http://www.investopedia.com/terms/s/secondarymarket.asp> (09 Feb 2012). In other words, when applied to virtual worlds, secondary markets will refer to the market and trade in virtual items and accounts that were never primarily intended to be traded in such a fashion.

²⁵² Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 146.

²⁵³ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 147.

earning a living, for instance when Chinese gold-farmers spend their whole day acquiring virtual gold pieces that are later sold on the internet in exchange for real money.²⁵⁴ Another example would be where a player creates a market and sells clothing in *Second Life* as a daily activity. Many of these players are relying on this method of income and expect to have a protectable property interest in their virtual property.

5 3 3 6 Value-added-by-users

The last *indicium* proposed by Blazer is value-added-by-users.

Blazer describes the issue in the following way:

²⁵⁴ An example of the effect of gold-farming as well as the value of secondary markets to players can be found in the case of *BlackSnow Interactive v Mythic Entertainment Inc*, case no 02-00112, 2002, US District for the Central District of California. Blacksnow Interactive was a company that employed Mexican workers to play the virtual world game of *Dark Age of Camelot* in a full-time capacity. The company's business model revolved around the fact that they could pay their Mexican workers a menial fee to spend their days online in the virtual world gathering virtual gold. This gold was then offered for sale on the online internet-based auction site eBay. In other words, the company could make use of the secondary market in associated virtual items in the game to make a profit. When Mythic got wind of this practice they suspended Blacksnow's accounts and forced eBay to ban Blacksnow's auctions. Blacksnow in turn sued Mythic for unfair business practices in the US district Court of California. The question of who owns the virtual world products was raised. Unfortunately, due to unrelated financial problems, Blacksnow's owners disappeared, leaving behind a lot of debt. They also did not pay their lawyers and as a consequence the case was dismissed. For a further discussion see generally Dibbell J "Serfing the Web" at <http://www.juliandibbell.com/texts/blacksnow.html> (10 March 2010).

“Contributing to the value of an intangible resource should not automatically entitle the contributor to a property interest in the resource – just as spraying graffiti on a building should not automatically entitle the graffiti artist to a property interest in the building. Rather, where the nature of an interest in an intangible resource is such that it should qualify for legal protection, there is a high likelihood that the user has, at some point, added value to the resource. Simply put, a person is likely to improve and customize property that he believes belongs exclusively to himself and, by recognising and encouraging this activity, the law of property ultimately benefits all people. Thus, value-added-by-user indicates, rather than creates, protectable virtual property interests.”²⁵⁵

The standard account that a player acquires when she logs into the virtual world for the first time illustrates how value can be added by users. The account is in essence a blank slate and the player starts to add value to the account as soon as she starts to progress through the virtual world by means of increasing her experience, gathering treasure or possessions and conquering monsters in quests. She therefore adds value to the account by her actions. Because of the increase in status, wealth, and capabilities, the account becomes more and more valuable to the player from a utility viewpoint (she can play the game better) as well as for interested third parties who might wish to purchase the account. Even though this might sound like the investment of time and effort that could be protectable by applying the Lockean theory of property through labour, Blazer argues that players would

²⁵⁵ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 148.

probably not invest such time and effort from the beginning if they did not feel that they start with equitable protection of their virtual property.²⁵⁶

The *indicium* of value-added-by-users is an important consideration, since players may assume that they have acquired an ownership interest in virtual property. They make this assumption because they have put in effort to customize and improve their virtual property.²⁵⁷ The virtual world is normally designed to facilitate this process.

5 3 3 7 Conclusion

The three characteristics and two *indicia* can help determine whether something is virtual property or not and whether there is a protectable interest in that virtual property. This will be especially valuable for courts in need of guidance with the development of case law. The three characteristics (rivalry, persistence and interconnectivity) are essential to the existence of virtual property, while the two *indicia* (secondary markets and value-added-by-users) are purely indicative and would help with the adjudication of borderline cases where it is not clear if a virtual property item should be afforded legal protection.

²⁵⁶ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 147.

²⁵⁷ Blazer C “The Five Indicia of Virtual Property” (2006) 5 *Pierce LR* 137-161 at 147.

5 3 4 *The characteristics of virtual things*

5 3 4 1 Introduction

In this section, I will apply the characteristics of real world things to virtual things in order to determine whether and how virtual things can be compared to real world things and how this will affect the justification for recognition. It will be shown that only the characteristics of corporeality and externality differ from their real world counterparts. However, as was discussed earlier,²⁵⁸ the fact that virtual objects are intangible should not by itself stand in the way of virtual property being recognised as property in the real world. It is already not much of an issue since intangibles like intellectual property are already recognised and protected as property in the real world. With regard to the requirement of externality, it will be shown that this is also not problematical for the recognition of virtual property.

With that in mind, it is important to note that the virtual world thing is usually designed to mimic a tangible thing found in the real world. This mimicry extends to almost all aspects of the characteristics of a thing, apart from the fact that a virtual thing cannot be tangible in the real world. However, as discussed elsewhere in this dissertation, players have no qualms about regarding virtual items as tangibles, since they cross the conceptual barrier when dealing with virtual property. Therefore, one could argue that because the item is tangible and corporeal inside the virtual world and is regarded as a tangible thing in the real world by the players, it should be

²⁵⁸ See the discussion above at 5.2.2 and 5.2.3.1.

regarded as property by real world legal systems. While one can make this argument, one should bear in mind that this is just one more justification for the protection of virtual property as property in the real world.

5.3.4.2 (In)corporeality²⁵⁹

In a virtual world, the requirement that a thing must be observable by any of the five senses as well as occupying three-dimensional space is fulfilled by the vast majority of legally recognised things. Because of the crossing of the conceptual barrier and due to technological advances, virtual items are represented in terms of the space that they occupy and they can be seen in the position where they are occupying that space. It could also be argued that a player can touch a virtual thing and exert physical control over it by means of controlling his or her avatar. As the levels of immersion into virtual worlds increase this requirement of corporeality will become less of an issue. However, as long as the doctrinal requirement of tangibility of things is still present in a legal system, virtual property should be classified as an intangible thing that is recognised as property as an exception to the rule. This will follow the precedent set by the recognition of other intangible things in South African law.²⁶⁰

²⁵⁹ When I apply the characteristic of corporeality to virtual world things I define them as (in)corporeal due to the fact that they are not regarded as corporeal in terms of real world physics, but they are regarded as being corporeal or tangible by virtual world players.

²⁶⁰ Bearing in mind that it does not pose much of a problem in Anglo-American systems. See the discussion above at 5.2.2.

The easiest and possibly the best way to create this new exception will be through new legislation that deals specifically with this issue, since other exceptions to the corporeality principle have been recognised quite easily, if the property interest in question was created, recognised or protected in legislation.

5 3 4 3 External to avatars

In the real world, the externality requirement's only function is to exclude humans and human body parts from being objects. In a virtual world, a player's avatar represents him or her in the virtual world and although the avatar is regarded as the virtual equivalent of a living human being in the virtual world, it is regarded as an object of a property right. This fact that an avatar can be a subject and an object of a property right seems to be in direct contrast to the application of the real world characteristic. However, due to the code-based, fantastical and flexible nature of the content and rules in virtual worlds, there is no reason why this should present a difficulty for the recognition of a virtual thing, since the moral reasons for requiring externality of things in the real world, is absent in virtual worlds.

However, externality still features to a lesser extent in the virtual world. The avatar is closely linked to the virtual world account and personifies the player's account inside the virtual world. The avatar can be sold, altered, destroyed and in certain cases (like in *Second Life*) body parts are freely available for sale on the in-

world market. Slaves could also be encountered in virtual worlds and can be the objects of property rights.²⁶¹ One area where many virtual worlds differ from the real world is where items appropriated by an avatar becomes “attuned” to the avatar. This means that the item will only be usable by that one specific avatar and never again by any other avatar. The item can never be resold or transferred to another avatar, although in certain cases it can be sold to a NPC²⁶² or destroyed²⁶³ if an avatar wants to get rid of it. In other words, even though it is external to an avatar, it becomes a personal part of the character.²⁶⁴ In essence, because avatars are not humans, the characteristic of externality is not a big issue for the recognition of virtual property as property in the real world.

²⁶¹ These slaves will usually not be avatars of other real world players. The slaves would normally be NPCs, which are provided by the developer to enhance the game-play and populate the virtual world. However, anything is possible in a virtual world and some players do in fact choose to become virtual slaves. An example of this is encountered in one of the sub-cultures in *Second Life* where some players own harems of sex slaves that are populated by other players’ avatars who fulfil their fantasies by role-playing as sex slaves. See Wagner M “Sex in Second Life” 2007 *InformationWeek* at <http://www.informationweek.com/news/software/hosted/showArticle.jhtml?articleID=199701944> (03 Nov 2010).

²⁶² When the item is sold to the NPC, the player would get a nominal amount for the item, but at the same time the game-code would remove the specific item from general circulation. In this situation the NPC just acts as an agent of the game-code. A visual illustration of how an NPC can act as an agent of the game-code is found in the movie *The Matrix* (1999), where the game-code creates NPCs (all of them clones of one another and called Mr Smith or Agent Smith) to fight the breach in the code created by NEO’s conscious immersion into the virtual world, from the outside.

²⁶³ Similar to a tattoo in real life.

²⁶⁴ See Sony “EverQuest II Manual” *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 17.

5 3 4 4 Independence

In the virtual world, independence is given by the code that separates and rebuilds the individual bits of code into recognisable and manageable entities. As soon as the data is transferred from the storage server and recreated into identifiable things on the screen, the independence of the virtual item is attained. This independent object is then imported into the virtual world either as a feature of the virtual landscape, or as an item lying around as *res derelictae* or carried around by wild beasts. The idea behind most virtual objects is that they should at one stage or another be acquired by a player's avatar as a possession. As in the real world, things like running water, crops and minerals are not initially considered to be independent, but are designed to be separated by an avatar into manageable and independent entities, as would be the case with mining, harvesting or bottling of water in the virtual world.

5 3 4 5 Appropriability / Susceptibility to avatar control

Virtual things are by their nature controlled by the computer, although the software enables the player to manipulate her avatar and virtual items in real time in the same way as would be possible in the real world. Once again, most virtual world items are explicitly designed (from a code level) to be appropriable and susceptible to control by avatars. The only exclusions would be so-called communal areas or buildings that are provided as background scenery or essential infrastructure to the game and are as such not appropriable by an avatar. Examples of this includes town-commons,

developer controlled taverns, municipal buildings, bridges and road infrastructure to name but a few.

5.3.4.6 Use and value

As with real world things, a virtual thing should also be a thing that could be subjected to human control. In this case it would indirectly be subjected to human control and directly subjected to avatar control. It follows that virtual objects that are not susceptible to avatar or player control would not be regarded as having the characteristic of use and value (for an avatar). Examples in the virtual world mirror those in the real world and include objects such as the virtual sky, sea and planets. However, if any of these objects can be separated into manageable units and therefore subjected to avatar control, they could be regarded as virtual things.²⁶⁵ Unlike in the real world, another example of objects that are not regarded as things would be most non-interactive objects. Generally speaking, if an object in a virtual world is non-interactive, that means that it is not subject to avatar control and therefore will not be classified as a virtual thing. An example of this would be a building in a virtual town that was created and coded into the virtual world with the sole purpose of being a non-functional piece of scenery.

²⁶⁵ An example of this will be a virtual world where one of the functions of the game is to take control of a whole planet in a galactic war. In that case, the player and her avatar could indeed exert control over the planet and make use of it. For the purposes of that virtual world, a planet would qualify as a thing.

As was illustrated by the case discussions in chapter 3, the characteristic of being of value is the most important one that a court will take into consideration when deciding to afford a virtual property interest with protection as property or not.²⁶⁶ Although virtual property normally has considerable economic value, sentimental value is also recognised in virtual property.²⁶⁷ In a virtual world, most things are either of use or value to an avatar. This can be financial value inside the game, i.e. a sword can be sold or traded in the game for a reciprocal amount of gold, or it can be traded or sold outside of the game for real world money. The sword or other items can also be of value due to their function and usability inside the game. This means that the sword can be used by an avatar to complete quests and advance in the game. Therefore, it will be of both use and value to the player. Sometimes an item might not have any financial or use value, but would rather enhance the status of the player by having sentimental value purely because it is a trophy or indication of how far a player has advanced. For example, a level 70 mage might not have much use for carrying around “the staff of Gandalf”, except for the fact that no other player who is not a level 70 mage will be able to pick it up. Thus the staff symbolises the player’s status in the game without having any real use or value apart from sentimental value.

²⁶⁶ See chapter 3 above at 3.5.

²⁶⁷ See chapter 3 above at 3.5.5.

5 3 4 7 Conclusion

One of the arguments for the recognition of virtual property is due to the fact that if an item is tangible and corporeal inside the virtual world and is regarded by the players as a tangible thing in the real world, it should be treated as property in the real world. To analyse this contention, I applied the list of characteristics of real world things as defined in the narrow approach of real world civil law systems to the concept of virtual property to see whether and where they are applicable to virtual property. According to the argument made above about the (in)tangibility of virtual things, it can be said that in the virtual world, a virtual thing seems to have many similar characteristics to those of real things in the real world. These are the characteristics of corporeality, being external to an avatar, an independent nature that is appropriable and being of use and value to an avatar.²⁶⁸ While this comparison showed that virtual things have many of the same characteristics as their real world counterparts, it was discovered that the characteristics of corporeality and externality have to be applied differently in a virtual world. It was also shown that these differences do not detract from the argument that virtual things should be recognised as property in the real world. The characteristic of corporeality is not a problem because real world property law already recognises certain exceptions to the requirement and the requirement of externality is not problematical because, although similar in virtual worlds, avatars are not humans.

²⁶⁸ Or to a player via his or her avatar.

It should be borne in mind that even though the characteristics cannot be applied perfectly to a virtual world, the similarity in form and function between a thing in the real world and a thing in the virtual world tends to be clear. This can be illustrated by the example of a chair in the virtual world. From a code-based perspective, it is designed to be and functions as if it were tangible inside the virtual world. The avatar can move it around, fall over it and sit on it. It follows the form and function of its real world counterpart, since it is of use and value to the avatar. It is independent of the avatar in that it can be left behind and be separated from the control and possession of the avatar. If the avatar ceases to exist or leaves the virtual world, the chair still remains behind in the virtual world and does not disappear. It is appropriable and susceptible to human control on two levels. From the real world perspective, the chair is controllable and appropriable by a real person through the direct manipulation of an avatar. From the perspective of being inside the virtual world, the chair can be sold, traded, stolen or destroyed by an avatar or other avatars. Lastly it is of use and value because it follows the form and function of a chair in the real world that is also of use and value. Apart from being useful and valuable inside the virtual world, the thing is usually also commercially valuable both inside and outside the virtual world.

In conclusion, although the subjects of property differ in the real and virtual worlds, the focus here is rather on the objects of property than the subjects. This makes the discrepancies between the characteristics of virtual things and real world things much less of a problem.

5 3 5 Classification of virtual things²⁶⁹

5 3 5 1 Introduction

The aim of this section is to illustrate that virtual property can or should be classified in much the same way as traditional real world property. In order to do this, I will follow the classification system of real world things as described above.²⁷⁰ To avoid confusion, I will only discuss the classification of virtual things as they relate to the player via his or her avatar.

Similar to the real world, in a virtual world, virtual things can also be classified according to their relation to man (via his avatar) or according to their own nature.

5 3 5 2 Classification according to their relation to a (virtual) person

5 3 5 2 1 Negotiable things

In the virtual world, most things are designed to be of a negotiable or potentially negotiable nature and the real world distinction between *res nullius* and *res alicuius* is also a prominent feature in virtual worlds. All property that is negotiable will be in a state of either being *res nullius* or *res alicuius*. It will either be lying around as *res nullius* and be appropriable by any avatar that decides (and is able) to pick it up, or it will be in the possession of another player, NPC or monster who can be persuaded,

²⁶⁹ Compare with the real world classification of things at 5.2.4 above.

²⁷⁰ See 5.2.4 above.

bartered with, or killed to acquire the thing. An example of a *res nullius* would be a piece of armour that a player discovers when exploring a hidden area of a dungeon in the virtual world, while an example of a *res alicuius* would be an enchanted sword carried around by a dragon that will be appropriable by a player once he or she has killed the dragon.

5 3 5 2 2 Non-negotiable things

There are a number of non-negotiable things inside a virtual world and the categories of *res omnium communes* and *res publicae* can be distinguished. In a virtual world, the category of *res omnium communes* will apply to all the things that are regulated by the game-code and are available for anyone's use. This will include the air, running water and most natural scenic features that are designed to be non-interactive with avatars. The second category is *res publicae*. Most things that do not belong to any player in a virtual world would fall in this category. This would also include non-playing characters (NPCs) that are considered the property of the developers. These items are also designed by the developer to be non-appropriable by avatars, but are of a more interactive nature. Examples include public buildings such as taverns, town halls, the infrastructure surrounding a town such as the walls and bridges over rivers. These items are owned by the developer, but are designed to benefit the players directly. The category of *res universitatis* is not usually

encountered in a virtual world, but depending on the type of virtual world, *res divini iuris* is seen from time to time. In many virtual worlds,²⁷¹ virtual religion²⁷² is an important part of the storyline and a number of religious places are provided by the developer for this purpose.²⁷³ These can vary from churches and cathedrals to stone circles or caves in the woods.²⁷⁴

²⁷¹ For example in *Everquest* “followers of a certain god may not be able to purchase goods in a town that doesn’t believe in that god. Additionally, they may be treated with hostility by some other players.” See Couper C “Everquest Synopsis” 2010 *allgame* at <http://www.allgame.com/game.php?id=16457> (02 Feb 2012). Religion also plays an integral role in *World of Warcraft* and *Ultima Online*. See in general UO Stratics Staff “The Virtues” *stratics.com* at http://uo.stratics.com/secrets/misc_v.shtml (02 Feb 2012); Queggy “Religion in WoW” 2009 *WoWHead News* at <http://www.wowheadnews.com/blog=92844/religion-in-wow> (02 Feb 2012).

²⁷² See in general Schroeder R, Heather N & Lee RM “The Sacred and the Virtual: Religion in Multi-User Virtual Reality” (1998) 4 *JCMC* (electronic).

²⁷³ For more detail about this practice see: Heidbrink S, Miczek N & Radde K “Religions in Virtual Worlds. Researching Theory and Practice of Cyber-Religions” at <http://online-religion.uni-hd.de/> (02 Feb 2012); Koster R “Bartle Talks (Virtual) Religion” 2011 *Raph Koster’s Website* <http://www.raphkoster.com/2011/03/28/bartle-talks-virtual-religion/> (02 Feb 2012); Heider S “Religiousness and God in Computer Games” 2010 *Webreligion* at <http://webreligion.wordpress.com/2010/10/22/religiousness-and-god-in-computer-games/> (02 Feb 2012).

²⁷⁴ See for example the virtual world reproduction of St Paul’s Cathedral in *Second Life*. See Linden Lab “St. Paul’s Cathedral” *Second Life* at <http://secondlife.com/destination/st-paul-s-cathedral> (02 Feb 2012).

5 3 5 3 Classification according to nature

5 3 5 3 1 Corporeal and incorporeal things²⁷⁵

In a virtual world, one also encounters the distinction between corporeal and incorporeal things. The classification is similar to the one encountered in the real world and most virtual things that are tangible by an avatar are considered to be corporeal. Examples of these things are armour, shields, swords, chairs, a chest of gold, houses and most other virtual items.²⁷⁶ Incorporeal things are also encountered and they are the exception to the rule, as in the real world. The most prominent example of an incorporeal thing that is comparable to the real world counterparts of electricity or energy in general, is a magic spell. These spells are usually traded, appropriated and kept in some tangible container, such as a book or scroll.²⁷⁷ However, once they are released or used, they take on their incorporeal form to exert influence on the environment. Another prime example is intellectual property rights that avatars acquire to the intellectual property that they create in a world such as *Second Life*.²⁷⁸

²⁷⁵ See generally: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 33-34.

²⁷⁶ Mythic "Ultima Online Playguide: Equipment" 2010 *UO Herald* at <http://www.uoherald.com/node/176> (03 Nov 2010).

²⁷⁷ Mythic "Ultima Online Playguide: Magic – Runes and Rune Books" 2010 *UO Herald* at <http://www.uoherald.com/node/191> (03 Nov 2010).

²⁷⁸ See in general: Linden Lab "Linden Lab Official: Intellectual Property" 2010 *Second Life Wiki* at http://wiki.secondlife.com/wiki/Intellectual_Property (03 Nov 2010).

5 3 5 3 2 Movable and immovable things

In the virtual world, things are also further classified in terms of being either movable or immovable. While most virtual things are movable, there are certain things that are regarded to be immovable. For example, players can own virtual land and buildings²⁷⁹ that are considered immovable. All things that are included in the game purely as scenery or background will also be immovable, such as communal buildings like taverns and town halls that the developer provides for facilitating gameplay. Most other virtual world items will be regarded as being movable. An example of an incorporeal movable thing in terms of real world property is the player's account as her combined virtual world patrimony.

5 3 5 3 3 Divisible and indivisible things

In the virtual world a divisible thing can be also be divided into smaller components while retaining its nature and function, without the smaller components losing their proportional value. Examples of divisible things would be raw materials like rock and sand that is mined by a player, or bags of grain or corn that was grown and

²⁷⁹ However, in certain virtual worlds one can move a player's home or castle to another location inside the virtual world. However, a number of more onerous restrictions still apply to these moves such as the requirement that the place where it is being moved to must be big enough to properly accommodate the property. See Catnap P "Moving" *Second Life Forums Archive* at <http://forums-archive.secondlife.com/327/bf/341182/1.html> (03 Nov 2010).

harvested.²⁸⁰ Indivisible things would include such items as paintings, chairs, swords and other virtual items that follow the form and function of their real world counterparts.

5 3 5 3 4 Consumable and non-consumable things

In virtual worlds, certain items are designed to be consumable and are depleted in value or usefulness when used by players. Examples are magic potions that are only usable once or a magical axe that can only be used for a limited number of attacks before breaking or disappearing. Even though an item might be non-consumable, a feature that is often integrated into virtual worlds is that non-consumable items need to be maintained or repaired from time to time.²⁸¹ For example, when an avatar dies in *EverQuest II*, it creates a wear and tear of 10% of the item's durability and if the item is not repaired, it will become unusable once its durability reaches 0%.

5 3 5 3 5 Fungible and non-fungible things

The difference between fungible and non-fungible things is not as important for virtual worlds as the rest of the characteristics. In virtual worlds, many of the *res*

²⁸⁰ See Sony "EverQuest II Manual" *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 37.

²⁸¹ See Sony "EverQuest II Manual" *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 17.

nullius items that are available for appropriation by players are considered to be fungible. Because many items are of a generic nature, i.e. there are 2000 silver swords lying around in a forest, they can easily be replaced by another silver sword of the same kind. The most prominent example of fungible items in virtual worlds would be gold pieces. However, the more valuable a virtual world thing is, the more likely it is to be unique and non-fungible. For example, there might only be one “sword of truth” that a player can use to slay the “dragon of deception”. This sword cannot be replaced by any other.

5.3.5.3.6 Singular and composite things

In virtual worlds, one also finds singular and composite things and these items normally mimic the qualities of their real world counterparts. Some virtual worlds even give the player the ability to create new items by combining certain other items. Once the items have been combined, a new thing is formed and the thing cannot be broken down into its base elements again. Keys regularly feature as auxiliary items in virtual worlds, giving players access to certain areas or the ability to open treasure chests. This extract from the *EverQuest II* manual provides an excellent example of how singular things can be combined into composite or new singular things.²⁸²

²⁸² In real world law, the combination into a composite is achieved by means of accession, while the creation of new singular things is achieved by means of manufacture. In the virtual world manufacture will always be achieved with material that one bought or acquired legitimately.

“To craft, you will need a recipe and the materials called for in the recipe. You must have these on your character and access to the required device to start the process. Crafting stations can be found in workshops throughout cities, and include sewing tables, scribing desks, lathes, workbenches, forges, chemistry tables and stoves. ... Raw components are harvested from sources such as roots, felled trees, and unearthed stones around Norrath. Right-click on one and select “Harvest” to gather raw components. There are skill levels associated with harvesting, which you will increase through use. Different zones require varying skill levels and return varying tiers, or levels, of harvested items. Basic materials required in crafting are available from merchants inside your workshop, such as coal, filament, and other items.”²⁸³

5 3 5 4 Conclusion

In this section it became clear that virtual property closely resembles real world property and more specifically real world things. The real world classification of things was applied to virtual things in order to see how and if they can be compared and where they differ. The results of this comparison showed that while it is possible to deviate from the classification of real world things in a virtual world (due to the creative power of the code), the classification of virtual things tend to follow the real world counterpart in almost all circumstances. The only real exception is found in the classification of fungibles in a virtual world where the difference between fungible and non-fungible things is not as important as the rest of the characteristics. Due to

²⁸³ See Sony “EverQuest II Manual” *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 36-37.

the unique nature of game-code, many of the *res nullius* items that are available for appropriation by players are considered to be fungible. However, the more valuable a virtual world thing is, the more likely it is to be unique and non-fungible.

As with the exception found with the classification of fungible and non-fungible items, where it was necessary or considered appropriate to enhance the functioning of a virtual world and where one was not bound to follow the restrictions and developments of the classification in the real world, the content of the classifications differed. With this in mind, it should be clear that, if anything, the similarities between the classification of real world things and virtual world things will only strengthen the recognition of virtual property in the real world.

5 4 Conclusion

Even though many people do not currently see the value of protecting or recognising virtual property, it will most probably become so important within the next ten to fifteen years that everyone will look back and wonder how they could have lived without it. For example, ten years ago, mobile phones were a rarity, but today almost everyone has at least one mobile phone, while many have two or more. In the future, the way in which people interact with the internet will change and the sites they visit will transform into three-dimensional virtual worlds. The internet is already a prime example of a virtual world and it is just a matter of time before it will be represented

and browsed via a three dimensional interface.²⁸⁴ Domain names facilitate the same function as real property (for example, land). The URLs and physical connections between websites are the roadway infrastructure taking visitors from one place to the next by means of their client computers and taking the place of transporting vehicles. It is not inconceivable that applications such as Facebook or Google and eventually the whole internet will move towards a three-dimensional interface that is instantly recognisable as a virtual world.

As was discussed in the previous chapter, there are a number of very good reasons and justifications for the protection of virtual world property interests, as was illustrated according to the very theories that justify protection of property in the real world. Apart from the justifications of the economic and social importance of virtual worlds, three normative theories can be used to justify the protection of virtual property interests (especially via property rules). The first normative justification is based on the Lockean labour theory. The second normative justification is based on utilitarian justifications, while the third normative justification is derived from Radin's personhood theory.

The chances for recognition of virtual property in Anglo-American common law should be very good since it will just require a good justification. This is due to the wider meaning of "property" in the Anglo-American private law tradition. Therefore, it would not be difficult to include virtual property as part of Anglo-American property

²⁸⁴ The new three-dimensional browsing interface will initially probably represent *Second Life*.

law and virtual property could be protected against both private and state interferences in private and constitutional law. In Roman-Germanic civil law the chances of virtual property being recognised under private law is slightly more nuanced. Because of the focus on the objects of property in the Roman-Germanic tradition, “property” is usually narrowly interpreted and associated with tangible things. However, the recent trend in South African law that recognises certain exceptions to this, as well as the number of arguments for the widening of the definition in general, could allow for recognition of virtual property in private law. However, this is more likely to happen if the right to virtual property is recognised and protected in legislation. Because of the fact that property is defined much wider under constitutional law than under private law in the civil law systems, one can conclude that it is possible to protect virtual property in constitutional law - even if it is not recognised in private law. However, there will be differences between the effect of the protection since, recognition of property in private law differs from recognition in constitutional law. While the purpose of recognition in private law is to enforce protection against other private actors, the purpose in constitutional law is to enforce protection against state interventions.

It is clear that there is such a thing as virtual property. The problem is just that it is not generally recognised as objects of property rights and protected by real world legal systems and courts. If one was to concede that a player can have rights in virtual property (apart from the contractual rights acquired from the EULA), it must also follow that those rights in the virtual objects should be protectable and enforceable. In this chapter, I described the proposed characteristics of virtual

property according to Fairfield, but also explored how the South African doctrinal system of property law and more specifically, the law of things could be applied to virtual property. It became clear that virtual property closely resembles real world property and more specifically real world things. The real world classification of things was applied to virtual things in order to see how and if they can be compared and where they differ. These are the characteristics of corporeality, being external to an avatar, an independent nature that is appropriable and being of use and value to an avatar.²⁸⁵ While this comparison showed that virtual things have many of the same characteristics as their real world counterparts, it was discovered that the characteristics of corporeality and externality have to be applied differently in a virtual world. It was also shown that these differences do not detract from the argument that virtual things should be recognised as property in the real world. The characteristic of corporeality is not a problem because real world property law already recognises certain exceptions to the requirement and the requirement of externality is not problematical because, although similar in a virtual world, avatars are not humans.

It should be borne in mind that even though the characteristics cannot be applied perfectly to a virtual world, the similarities in form and function between a thing in the real world and a thing in the virtual world tends to be clear. Although the subjects of property differ in the real and virtual worlds, the focus here is rather on the objects of

²⁸⁵ Or to a player via his or her avatar.

property than the subjects. This makes the discrepancies between the characteristics of virtual things and real world things much less of a problem. The results of this comparison showed that while it is possible to deviate from the classification of real world things in a virtual world (due to the creative power of the code), the classification of virtual things tend to follow the real world counterpart in almost all circumstances. The exceptions to this occurred where it was necessary or considered appropriate to enhance the functioning of a virtual world and where one was not bound to follow the restrictions and developments of the classification in the real world. With this in mind, it should be clear that, if anything, the similarities between the classification of real world things and virtual world things will only strengthen the recognition of virtual property in the real world.

In conclusion, if a virtual item cannot be recognised as a thing according to South African law because it is incorporeal, an exception to the rule will have to be created by legislation. Otherwise, it could be accepted that the incorporeal aspect of virtual things is acceptable as an exception to the rule. Another interpretation rests on the fact that virtual items can be regarded as corporeal things because of the nature of storage, access and manipulation of the items that is facilitated by modern technology. With this idea in mind that virtual property objects could be regard as being similar to their virtual world counterparts, the discussion in the following chapter will deal with property as rights and end with a discussion of possible remedies for the protection of virtual property.

Chapter 6: Property Rights in Virtual Worlds

6 1 Introduction

In this chapter, the focus will be on property rights as they are encountered in virtual worlds. This chapter starts with a discussion of the basic principles of real world property law.¹ These real world principles are applied to the virtual world to ascertain whether and to what extent they can apply in virtual worlds. Thereafter the discussion moves on to the topic of property as rights. While the focus in the previous chapter was on property as the object of rights, this chapter deals with property rights and the question of how they relate to and can be applied to virtual worlds.

A big debate in the field of virtual property law centres on the type(s) of right(s) that attach to virtual property. Are these rights personal or real? Are they proprietary

¹ These are the principles of *numerus clausus*, absoluteness, publicity, specificity, transferability and abstraction. Note that while extensive use was made of comparison between various legal systems and virtual worlds in the previous chapter, this chapter will focus on a general comparison between the (general) real world principles mentioned above and their occurrence (or not) in the virtual world. As such I will not be making a comparison between German, Dutch and South-African law for each of the principles, but will accept that their similarity with regard to their general application of these principles will be sufficient to illustrate how they can be applied to a virtual world. Where there are large discrepancies between systems, i e with regard to abstraction, these will be addressed in the text.

or contractual? Most important of all, do these rights need to be real rights to enjoy strong protection? The answers to these questions are elusive and to a certain degree still unexplored. It also ties in with the discussion in chapter three about the laws of virtual worlds. A number of tools will be discussed that could assist with the determination of whether a particular right is personal or real. One of these tools is the so-called “classical theory of property law”.² It is argued that if all the requirements of the classical model of property law are met, a right will be a property right. The next tool is provided by Akkermans,³ who argues that the *numerus clausus* principle is the gatekeeper (filter) of property rights. His contention is that if a right is accepted under the *numerus clausus* principle it will be a property right;⁴ if not, it is a personal right. This classical model of property as well as Akkermans’ contention will then be applied to virtual property by referring to Moringiello,⁵ who authoritatively argues that the *numerus clausus* principle should be used to determine and justify virtual property rights.

The discussion then moves on to an investigation of the question whether and how the real world concepts of ownership and limited real rights, as well as

² Van Erp JHM “From ‘Classical’ to Modern European law?” 2006 SSRN at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22.

³ Akkermans B *The Principle of Numerus Clausus in European Property Law* (2008) 565-570.

⁴ “Only after the *numerus clausus* test is passed, other principles of property law, such as specificity and publicity, begin to apply”. Akkermans B *The Principle of Numerus Clausus in European Property Law* (2008) 565.

⁵ Moringiello JM “Towards a System of Estates in Virtual Property” (2007) 08-22 *Widener Law School Legal Studies Research Paper Series* at <http://ssrn.com/abstract=1070184> 1-8.

ownership and possession, are encountered and dealt with in the virtual world. The acquisition of virtual property will be used as a concrete illustration of how property rights operate in virtual worlds.

6 2 Basic principles of the law of (virtual) things⁶

6 2 1 Introduction

Six basic principles⁷ of property law form the foundations of a number of traditional property law rules.⁸ Together, these principles represent the framework for the creation of new property law rules.⁹ They are the principle of *numerus clausus*; the principle of absoluteness; the principle of publicity; the principle of specificity; the principle of transferability and the principle of abstraction. In the following section, I discuss each of them and investigate whether it is possible to apply the same basic principles of property law to the virtual world. At the end of this section it should be clear whether these principles could be applied, whether there are exceptions and whether some cannot be applied at all.

⁶ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 410.

⁷ See in general: Van der Merwe CG *Sakereg* (2nd ed 1989) 9-16; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 7; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 410; Wilhelm J *Sachenrecht* (2nd ed 2002) 4-13; Bauer F, Bauer JF & Stürner R *Sachenrecht* (17th ed 1999) 29-35.

⁸ Van der Merwe CG *Sakereg* (2nd ed 1989) 11; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 7.

⁹ Van der Merwe CG *Sakereg* (2nd ed 1989) 10.

6 2 2 *The principle of numerus clausus*¹⁰

One of the most prominent characteristics of property law is that it contains a number of closed systems. South African law has an almost closed number of categories of real rights and constructive modes of delivery,¹¹ as well as a totally closed system of modes of original acquisition of ownership.¹² When one deals with real rights, only property rights and methods of acquiring ownership falling within the accepted categories are allowed. This is in contrast to the almost unlimited freedom that contracting parties have to create (new, personal) rights between themselves. It is the ability to create new categories or not that characterises the system of contract law as an “open” one, as opposed to the “closed” system of property law. The main purpose of this closed system of property rights is to ensure and promote legal certainty. This results in relative certainty with regard to the accepted categories of property rights that can be vested, as well as the legally accepted constructive modes of transfer of property.

¹⁰ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 410; Wilhelm J *Sachenrecht* (2nd ed 2002) 5; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 7.

¹¹ See in general *Groenewald v Van der Merwe* 1917 AD 233; *Caledon en Suid-Westelike Distrikte Eksekuteurskamer Bpk v Wentzel* 1972 1 (SA) 270 (A); *Air-Kel (Edms) Bpk h/a Merkel Motors v Bodenstein* 1980 3 SA 917 (A).

¹² Van der Merwe CG *Sakereg* (2nd ed 1989) 11; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 410.

There are a number of criticisms levelled at the principle of *numerus clausus*. The first is that it cannot keep up with the fast pace of societal development since it is a system that is created without precognition and as such is incapable of dealing with new and unforeseen developments.¹³ With regard to the application of the *numerus clausus* to the recognition of new categories of real rights, the South African courts have not been as strict as they could have been, while some authors state that the South African law does not recognise a closed system of real rights at all.¹⁴ It is possible to create new rights by means of two main methods. The first is the creation of new real rights by means of legislation.¹⁵ The second is the creation of new forms of real rights inside an established common law category.¹⁶ New categories of real rights have also been accepted because of changing socio-economic circumstances. Currently the categories of real rights that are recognised by South African law are:

¹³ This is the reason why constructive modes of delivery are not totally closed. Because of this inflexibility the courts have not been as strict in the application of the *numerus clausus* principle when dealing with constructive modes of delivery.

¹⁴ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 39.

¹⁵ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 39; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 49. Examples of new categories of real rights that have been recognised after being created by legislation are the right to labour tenancy, sharecropping, and sectional title ownership.

¹⁶ This is especially prevalent in the category of personal servitudes. For example, recently in *National Stadium South Africa (Pty) Ltd and Others v Firstrand Bank Ltd* 2011 (2) SA 157 (SCA) it was accepted that it is possible to create a new personal servitude with regard to the naming rights for a sports stadium.

ownership; servitudes; pledge; mortgage; perpetual quitrent; leasehold and land lease.¹⁷

The principle of *numerus clausus*, together with the requirement in the law of things that a thing must be a corporeal to be the object of a real right, are the main stumbling blocks for the recognition of virtual property in South African law. Each of these blocks recognition of virtual property to some degree. The principle of *numerus clausus* creates difficulties since virtual property is almost exclusively based on contract (personal rights) and therefore inherently excludes real rights. The requirement of corporeality clearly makes it difficult to recognise virtual property since virtual property is (at least in the real world) incorporeal.

In order to determine whether a particular right is personal or real, one can make use of certain tests. The first test makes use of the so-called classical theory of property law¹⁸ to help determine whether a specific right should be regarded as a real right or not. If all the requirements¹⁹ of the classical model of property law are

¹⁷ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 39; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 48. Mineral rights were historically also included in this list but has been abolished by the Mineral and Petroleum Resources Development Act 28 of 2002, now just mining rights under the Act are recognised.

¹⁸ This classical theory of property law is discussed in more detail below at 6.3.2.

¹⁹ See 6.3.2 below for a discussion of the requirements of the theory. This section is based on the work of two main authors. While they are respectively Dutch (Van Erp) and Belgian (Akkermans), the work that I base this section on is based on comparative property law and as such provides a good bright-line discussion of general property law principles. Van Erp is one of the most prominent scholars on comparative property law and Akkermans wrote his doctoral dissertation on the

met, a right is a property right.²⁰ This is also explored by Akkermans, who argues that the *numerus clausus* is the gatekeeper of property rights.²¹ His contention is that if a right is accepted under the *numerus clausus* it will be a property right; if not, it is a personal right.

It has been contended that the *numerus clausus* principle should also be applied to virtual property.²² The questions that relate to the legal nature of assets in virtual worlds tend to mirror the questions that arise in connection with intangible rights in the real world.²³ These questions lead to understandable confusion about the classification of these rights as contractual or property rights. The principle of *numerus clausus* should be applied to virtual property so that courts that have to deal with disputes relating to virtual property could have fixed property types or categories to which they can resort. If courts were to use this principle, one way in which the uncertainty regarding virtual property rights caused by contracts and EULAs could be limited.

comparative European property law aspects of the *numerus clausus* – including an analysis of South African law.

²⁰ See generally: Van Erp JHM “From ‘Classical’ to Modern European law?” 2006 SSRN at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22.

²¹ Akkermans B *The Principle of Numerus Clausus in European Property Law* (2008) 565-570.

²² Moringiello JM “Towards a System of Estates in Virtual Property” (2007) 08-22 *Widener Law School Legal Studies Research Paper Series* at <http://ssrn.com/abstract=1070184> 1-8; Moringiello JM “What Virtual Worlds can do for Property Law” (2009) 09-08 *Widener Law School Legal Studies Research Paper Series* at <http://ssrn.com/abstract=1366450> 1-51 at 4.

²³ See the discussion in chapter 5 above at 5.3.1.3.

6 2 3 *The principle of absoluteness*

The second basic principle of property law is the principle of absoluteness.²⁴ This means that a real right provides absolute certainty to the holder of that right with regard to the following aspects. The first aspect is that the holder's control over the property will be respected and protected. The second aspect is that the holder's right to the property will in general be given preference over other rights that third parties may have vested in the same property.²⁵ The idea is to place the holder of a real right in an incontestable position *vis-à-vis* the property itself,²⁶ as a consequence of which the holder's real right can be enforced against the whole world (*erga omnes*).

The concept of a real right being enforceable against everyone results in one of the main differences between real rights and contractual rights. A real right is defensible against the whole world, in other words even against someone who was not a party to a specific transaction from which the right may have originated. By comparison, a contractual right to property is called a personal right and only binds those parties who chose to bind themselves to the contractual relationship.

²⁴ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 410; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 7; Bauer F, Bauer JF & Stürner R *Sachenrecht* (17th ed 1999) 29.

²⁵ Third parties can have certain rights in the property that take preference to the owner's rights. One such example will be the right of a servitude holder that takes preference over the rights of the owner of the servient property.

²⁶ Van der Merwe CG *Sakereg* (2nd ed 1989) 12.

The distinction between real rights (ownership and limited) that are absolute, personal rights that are contract-bound, and positions that are insecure has a direct impact on the type of remedy (if any) that is available to a holder. The remedies available to a holder of a real right are comprehensive, which is one of the reasons why real rights are considered more valuable than personal rights. An owner can use the *rei vindicatio* to reclaim her property if she lost possession of it,²⁷ or use the *actio negatoria* to fend off certain claims to the use of the property by third parties.²⁸ In the case of damage to the property, she can institute a delictual claim. She can usually obtain an interdict to fend off or terminate any interference with the property. Whereas property rights are protectable by strong property remedies, personal rights derived from contract are much weaker and usually only result in compensatory remedies. However, an exception to this exists in the case where a personal right is strengthened by means of legislation in order to give the right-holder property-like protection.²⁹

The principle of absoluteness leads to the definition and content of ownership. Ownership is seen as the most complete and comprehensive property right that anyone can have with regard to an object of property rights.³⁰ As a result of this principle of absoluteness there are three assumptions that can be made. The first is

²⁷ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 170.

²⁸ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 173.

²⁹ See the discussion about property as rights at 6.3 below as well as the discussion about remedies at 7.2 below.

³⁰ Van der Merwe CG *Sakereg* (2nd ed 1989) 13.

that two persons cannot both have full ownership of the same property.³¹ The second assumption states that because ownership is seen as an absolute right, ownership and limited real rights can be clearly distinguished from each other.³² Ownership is the most comprehensive right regarding an object, while a limited real right is a limited right that someone has with regard to someone else's property. The third assumption follows from the second and states that due to this clear distinction between ownership and limited real rights, a person cannot have both ownership and a limited real right with regard to the same object at the same time.³³

The principle of absoluteness also applies to virtual worlds.³⁴ Both players and developers want to protect their virtual property interests and would argue that they have real rights rather than personal rights to their virtual objects³⁵ since the remedies that will be available to them will be much stronger than in the case of weak personal rights. However, it would be false to assume that virtual property can only be protected adequately if it is recognised as real rights. In the virtual world, the

³¹ Even in the cases of trust ownership and co-ownership, the ownership of any single party is restricted by the simultaneous ownership of the other party: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 7.

³² Van der Merwe CG *Sakereg* (2nd ed 1989) 13; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 8.

³³ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 410; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 8.

³⁴ Compare with the discussion of rivalrousness in chapter 5 above at 5.3.3.2.

³⁵ The reason for this is that real rights are much stronger rights with better associated remedies. Real rights also take precedence over personal rights in case of conflicting claims to the same property.

principle of absoluteness is sometimes coded into the system.³⁶ Players can enforce property rights against other players with regard to their virtual property and the game's design facilitates the *erga omnes* or third party application and enforcement of these rights.³⁷ For example, a player who owns a house in the virtual world could exclude all other players from the house.³⁸ If this right is embedded in the game-code others would be physically (and absolutely) incapable of entering the house, which is even stronger than the protection that a real right enjoys in real world property.

The distinction between ownership, limited real rights and personal rights also exists in virtual worlds. Players can own things inside the virtual world, and they can acquire limited real rights or personal rights in the property of others. For example, certain virtual worlds make provision for the pawning of items;³⁹ or one player could

³⁶ This is contained in the computer code that forms the foundation of the virtual legal system and world at large. See the discussion about code in chapter 3 above at 3.2.

³⁷ See the discussion about code-based property rules in chapter 3 above at 3.2.

³⁸ Players are allowed access to the house by means of the owner individually giving each player access via the game's access interface. A homeowner is further able to specify what each visitor can do or not do in his home. See: BioWare "Dark Age of Camelot Manual: Chapter 4: Accessibility" 2010 *www.camelotherald.com* at <http://www.camelotherald.com/housing/manual/chapter4.php> (10 Oct 2010). Compare this with the discussion about the nuanced system of code-based rules with regard to what visitors can do with objects inside one's virtual home in chapter 3 above at 3.2. This same design system gives a home-owner the power to either give a player, all players or only certain specified categories of player (i.e. friends, guild members etc) access to one's home or only certain parts of one's home.

³⁹ Mythic "Britain Pawn Shop, Undercutting Siege Vendors Since 2010!" 2010 *stratics.com* at <http://vboards.stratics.com/uo-siege-perilous/225319-britain-pawn-shop-undercutting-siege-vendors> -

lend⁴⁰ a thing or lease a property to another player in the game.⁴¹ Players should be aware that real world property rights do not always translate precisely into the same rights and entitlements when applied in the virtual world. If a specific legal principle is not coded into the virtual world, the remedies would often be of a personal rather than real nature. An example of this is the lease of property in *Second Life*. As in the real world, short-term leases are also personal rights in *Second Life*; the legal position of a tenant is insecure and based on the legal position of the lessor. If the lessor should lose ownership in *Second Life*, the lessee would not have any right to stay on the property. In this case, lease can never be a limited real right, but only a personal right. This is unlike the real world position where a long term lease can be registered against a property's title deed and as such become a real right. In spite of this precarious position, many players still lease and rent property in *Second Life*.

since -2010-a.html (10 Oct 2010); See also Alphaville Herald "Anshe Pays US\$60,000 to Open Virtual Pawn Shop in Entropia" 2007 *The Alphaville Herald* at http://alphavilleherald.com/2007/05/anshe_pays_us60.html (10 October 2010) where the virtual land baroness Anshe Chung was granted the right to make collateralized loans in *Entropia*.

⁴⁰ For example in the virtual world *There*, one can "...lend an item to someone and recall it from anywhere regardless of where the current item holder is." See: Koster R "Property Rights in Virtual Worlds" 2007 *Terra Nova* at http://terranova.blogs.com/terra_nova/2007/06/property_rights.html#comment-6a00d8341c022953ef00e00980394e8833 (10 Oct 2010).

⁴¹ See for example an advert for the lease of property: Fairplay J "Never Land 65536 sqm Full Sim Rent Lease" 2010 *Second Life Marketplace* at <https://marketplace.secondlife.com/p/NEVER-LAND-65536-SQM-FULL-SIM-RENT-LEASE/1556533?id=1556533&slug=NEVER-LAND-65536-SQM-FULL-SIM-RENT-LEASE> (10 Oct 2010); Linden Lab "Land Rentals" 2010 *Second Life* at <http://secondlife.com/land/rentals.php> (10 Oct 2010).

However, bearing in mind the fact that possession is often equated to ownership in virtual worlds, the virtual world should also have a mechanism for recognising and enforcing limited real rights at a code based level to promote transparency and the protection of limited real rights. The alternative to this would be where the concept of limited real rights was dealt with in the EULA or more specifically the TOS. In such a case, even though the game-code was not set up to enforce limited real rights, a player who finds herself in a position requiring enforcement of such a right could approach the developer for relief and the enforcement of such a right.

6 2 4 The principle of publicity

The principle of publicity⁴² follows the principle of absoluteness. One of the aims of property law is to publicise the real relationship between a person and a thing and consequently to help synchronise the legal and factual situation.⁴³ The principle of publicity realises this aim by prescribing that the real relationship between the legal subject and the object to which he claims a real right must be known publically or that it must be externally perceptible.⁴⁴ Third parties can determine from this externally ascertainable information which property rights exist between a legal

⁴² See in general: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 80; Wilhelm J *Sachenrecht* (2nd ed 2002) 10; Bauer F, Bauer JF & Stürner R *Sachenrecht* (17th ed 1999) 31; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 410.

⁴³ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 8.

⁴⁴ Van der Merwe CG *Sakereg* (2nd ed 1989) 13.

subject and the related object, as well as the point in time when such rights passed from one subject to the next. This requirement is realised by possession when the object is a movable and through registration of the right in a deeds office if the object is an immovable.⁴⁵

In the virtual world ownership of a movable is usually publicised by possession and in the case of an immovable, ownership is often determinable by requesting the information from the virtual world interface. For example, in *Second Life*, this is done by first selecting the object about which one would like information and then selecting the option to view the ownership details regarding the immovable property.⁴⁶ Otherwise, one can request the information from the developer. In a virtual world every single item is always registered in a database, the details are accurate and the system updates ownership details automatically. Unfortunately some virtual worlds do not make a distinction between ownership and possession or real versus personal rights. In such a case, the code-based property system will usually assume that any avatar who is carrying something or storing an item in or on property belonging to him or her, is the owner of that item. This propensity to equate

⁴⁵ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 411.

⁴⁶ This works in the same way in which a person can view the details or attributes of any computer file by clicking on the file and selecting the information tab. If the file is moved, the descriptive information (also known as meta-data) always goes with the file. The objects and things in a virtual world work in the same way. The information is always determinable, but how easy or difficult it is to view the information will depend on the level of interactivity that the developer coded into the system. Quite often a player can just click on an item to view its attributes in the virtual world.

possession with ownership had two important implications. The first is that due to the role of code-as-law, the loss of possession is much more controllable than in real life. For example, it is almost impossible for a player to accidentally lose possession of a virtual property object. The player would have to take a considered action to “drop” or “unequip” an item and so lose possession of it. The second is that due to this fact, in many virtual worlds more emphasis is placed on original acquisition of property rather than on transfer. However, developers are consistently under pressure to implement and refine their code-based property rules to something more nuanced than the simple “possession is all” rule.⁴⁷ In other words, in terms of the code-based legal framework, possession equals ownership. Personal rights can exist between players, but these relationships operate above the code level and are not enforceable by the program. Even though one would not expect this, given the factors already mentioned, the principle of publicity is one that many players take seriously. This can be seen by the creation and support of a central supra-virtual-world IP registration service called the Virtual World Intellectual Property Content and Land Registration Service (VWIPA) that serves as registry for amongst other things, virtual content registration, virtual land registration and a virtual world

⁴⁷ See Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184 at 151. See also the discussion about how code can create a set of nuanced property rules in chapter 3 above at 3.2 as well as the more detailed discussion of the distinction (or similarity) between possession and ownership in virtual worlds below at 6.3.4. Also see the discussion about acquisition of virtual property below at 6.3.5.3.

registration service.⁴⁸ The implication of this is that the registration of virtual property is regarded as a necessity by owners of virtual property since registration is usually used to make weak personal rights from contract more secure by converting them to property rights. The enforcement of the rights registered in the virtual worlds registry will probably be problematical since the registry is not backed by any formal national legislation and as such only serves an informative publicity function at the moment.

6 2 5 *The principle of specificity*

The principle of specificity⁴⁹ relates to the fact that a real right can only exist in respect of a specific thing.⁵⁰ This contrasts with the law of obligations, where a personal right to a performance can exist with regard to a collection of objects (or none at all). Property law determines that a real right can only exist with regard to a specified object and for the benefit of a specific legal subject.⁵¹

Specificity is important for the purposes of property law because it determines the legal boundaries of the property right of the holder with regard to her property. Specificity also prohibits the unspecified transfer of a collection of objects and

⁴⁸ Virtual World IP Association "About Us – VWIPA Overview" 2010 *Virtual World IP Association* at <http://web.vwipa.com/index.cfm?command=aboutus> (10 Oct 2010).

⁴⁹ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 411; Wilhelm J *Sachenrecht* (2nd ed 2002) 9; Bauer F, Bauer JF & Stürmer R *Sachenrecht* (17th ed 1999) 33.

⁵⁰ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 8.

⁵¹ Van der Merwe CG *Sakereg* (2nd ed 1989) 15.

therefore a person is not allowed to pledge all his movables in general.⁵² Each object has to be transferred individually, even if a person enters into a contract to alienate his or her whole estate. Because this principle is so rigid, it is sometimes amended or interpreted less strictly.⁵³ In the case of *traditio longa manu*, a herd of cattle can be transferred collectively and in the case of consignment, the contents of the hold of a ship or a warehouse can be transferred without having to specify each individual item.⁵⁴

In a virtual world, all items are always specified, since each item has to be registered in the world's database.⁵⁵ This database is not just a registry of items or objects, but part of the very core of the computer code as programming language. Every single bit of data that forms part of the virtual world will always have to be stored in some database or another, since no virtual world is capable of running without it. Even items that are apparently identical to each other have to have a

⁵² Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 8.

⁵³ An example of this less rigid application is where "a notarial bond is allowed in respect of the movable things of a debtor in general and even in respect of future things." Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9. See also Van der Merwe CG *Sakereg* (2nd ed 1989) 474-475.

⁵⁴ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9.

⁵⁵ See in general Lee J "MMP Database Mini-Cookbook: A Half Dozen Recipes to Aid Development" 2004 *Gamasutra* at http://www.gamasutra.com/resource_guide/20040920/lee_01.shtml (10 Oct 2010); Hutscal L "Designing your Game's Database" *Building Browsergames* at <http://buildingbrowsergames.com/2008/04/15/designing-your-database/> (20 Oct 2010). Also see: Virtual World IP Association "About Us – VWIPA Overview" 2010 *Virtual World IP Association* at <http://web.vwipa.com/index.cfm?command=aboutus> (10 Oct 2010).

unique identifier at all times, even if this identifier just includes the co-ordinates where the items are found in the virtual world.⁵⁶ Transfer of virtual objects will always happen on an individual item basis, since this is inherent in the binary storage system of a virtual world.⁵⁷ This means that both publicity and specificity are system necessities in virtual worlds.

6 2 6 *The principle of transferability*⁵⁸

As a matter of general principle, in contrast to personality rights, real rights are freely transferable.⁵⁹ Exceptions to this general rule are real rights such as *ususfructus* or other personal servitudes that are connected to the person of the individual who is the beneficiary of the real right⁶⁰ and are therefore inalienable.⁶¹ Another issue is whether the free transferability of a real right can be excluded or limited by means of

⁵⁶ Lee J “MMP Database Mini-Cookbook: A Half Dozen Recipes to Aid Development” 2004 *Gamasutra* at http://www.gamasutra.com/resource_guide/20040920/lee_01.shtml (10 Oct 2010).

⁵⁷ With regard to the transfer of virtual property, see the more detailed discussions below in the section dealing with the principle of transferability as well as the section dealing with the acquisition of virtual property.

⁵⁸ This is also sometimes referred to as the principle of transmissibility: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9; Wilhelm J *Sachenrecht* (2nd ed 2002) 7; Bauer F, Bauer JF & Stürner R *Sachenrecht* (17th ed 1999) 34; Du Bois F (ed) *Wille’s Principles of South African Law* (9th ed 2007) 411.

⁵⁹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9; Van der Merwe CG *Sakereg* (2nd ed 1989) 16.

⁶⁰ Van der Merwe CG *Sakereg* (2nd ed 1989) 16.

⁶¹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9.

a contract. In certain instances this may be allowed, for instance in cases where the transmissibility of a thing or a real right has been restricted by the registration of certain conditions to that effect in the deeds registry.⁶²

In a virtual world, virtual objects are usually transferable.⁶³ Virtual property usually follows the same rules regarding transferability as in the real world, but once again, exceptions apply. Some items, usually with a low value, are freely tradable but disappear after a single use (potions). Other items with an exceptionally high player value (armour and swords) cannot be traded and are considered to be “bound” to a player once he or she has taken possession of the item. Once an item is bound to a player, the code prohibits a player from transferring the item to another player. If a player “drops” or “unequips” such an item, it will not be appropriable by another player and will immediately disappear from the virtual world. In this case, the only way to trade the “bound” item will be to trade the whole avatar.⁶⁴ In other words, one

⁶² Van der Merwe CG *Sakereg* (2nd ed 1989) 16; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9.

⁶³ Some authors deem this transferability of virtual objects as one of the main features of virtual objects. See Westbrook TJ “Owned: Finding a Place for Virtual World Property Rights” (2006) 3 *Michigan State LR* 779-812 at 783.

⁶⁴ Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 4. It could be argued that this is comparable to accession in the real world and that the object attaches to the avatar and as such becomes part of it. This would make this an illustration of the principle of specificity rather than an exception to transferability. This argument rests on the fact that avatars can be regarded as objects that can be traded themselves. However I do not support this argument due to the fact that the game-conceit

can only transfer the bound object to another player by transferring or selling the complete virtual world account that is associated with that avatar to the other player.⁶⁵

6 2 7 *The principle of abstraction*⁶⁶

The South African legal system follows the abstract theory⁶⁷ with regard to the transfer of ownership.⁶⁸ The transfer of ownership is seen as an abstract juristic act⁶⁹ where (together with the act of delivery or registration) the “mere intention of the parties to pass ownership is sufficient without reference to the underlying *causa* for the transfer.”⁷⁰ This is contrasted with the causal theory with regard to the transfer of ownership,⁷¹ in terms of which a valid *iusta causa* or underlying cause is needed before ownership can be transferred. This is usually manifested in the form of a valid

does not support this. One is supposed to regard an avatar as separate from his or her virtual world possessions and patrimony. See the discussion about the game-conceit in chapter 4 above at 4.6.4.

⁶⁵ There are similar examples to this in real world property where the right to lateral support of land cannot be separated from ownership of the land and the co-ownership right in the common property of a sectional title scheme cannot be separated from ownership of the unit.

⁶⁶ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 411; Wilhelm J *Sachenrecht* (2nd ed 2002) 11; Bauer F, Bauer JF & Stürner R *Sachenrecht* (17th ed 1999) 35.

⁶⁷ For more detail on the different theories of transfer see: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 74.

⁶⁸ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 411.

⁶⁹ Mostert H & Pope A (eds) *The Principles of The Law of Property in South Africa* (2010) 190.

⁷⁰ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9.

⁷¹ For more detail on the different theories of transfer see: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 74.

contract.⁷² The abstract principle provides certainty by disallowing the invalidity of an underlying *causa* to affect either the existence or the validity of the transfer, provided the real agreement was valid.⁷³ The real agreement to pass ownership is treated totally independent of the obligation creating agreement that provides the *causa* for the transfer.⁷⁴ The principle of abstraction gives preference to the requirements of legal certainty rather than fairness and because of this is supportive of the principle of publicity.⁷⁵

In a virtual world, any cross-barrier transaction dealing with virtual property items will be governed by the real world legal systems that have jurisdiction to hear normal property disputes. However, if one accepts that most virtual worlds default⁷⁶ to the position where possession equals ownership,⁷⁷ it would follow that the game-code enforces an abstract system. When one player drops an item and the other player picks it up, the code does not take any cognisance of any other personal or social exchanges that might have preceded this method of transfer.⁷⁸

⁷² Mostert H & Pope A (eds) *The Principles of The Law of Property in South Africa* (2010) 190.

⁷³ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9.

⁷⁴ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 9.

⁷⁵ Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 412; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 10.

⁷⁶ At least at a code-level.

⁷⁷ See the discussion above at 6.2.1.

⁷⁸ Since most virtual worlds do not make provision for the real world act of physically transferring the object from the one player to the next, this is more akin to abandonment with resulting original acquisition for the buyer. However, the technical shortcomings of the game-code should not hinder

6 2 8 Conclusion

From the discussion above it is clear that all of the principles⁷⁹ of the real world law of property find some application to virtual property. However, there are numerous exceptions in the way in which the real world principles apply in a virtual world. This is because it is possible to code a virtual world's legal system to represent any of the real world legal systems, or an amalgam of them. From the analysis above, the following summary of the application of the principles to virtual property can be made.

It was shown that the principle of *numerus clausus*, together with the requirement in the law of things that a thing must be a corporeal to be the object of a real right, are the main stumbling blocks for the recognition of virtual property in South African law. The principle of *numerus clausus* creates difficulties since virtual property is almost exclusively based on contract (personal rights) and therefore inherently excludes real rights. The requirement of corporeality clearly makes it difficult to recognise virtual property since virtual property is (at least in the real world) incorporeal.

one in viewing this as transfer, especially when considering that the players will usually have the intention to transfer and accept.

⁷⁹ These are the principles of *numerus clausus*, absoluteness, publicity, specificity and abstraction.

It is clear that the questions that relate to the legal nature of assets in virtual worlds tend to mirror the questions that arise in connection with intangible rights in the real world and these questions lead to understandable confusion about the classification of these rights as contractual or property rights. It was proposed that the principle of *numerus clausus* should be applied to virtual property so that courts that have to deal with disputes relating to virtual property could have fixed property types or categories to which they can resort.

The principle of absoluteness applies to virtual worlds and it was shown that both players and developers want to protect their virtual property interests by means of having real rights rather than personal rights to their virtual objects, since the remedies that will be available to them will be much stronger than in the case of weak personal rights. The principle of absoluteness is sometimes coded into the system and players can enforce property rights against other players with regard to their virtual property. The distinction between ownership, limited real rights and personal rights also exists in virtual worlds.

The principle of publicity is applied very similarly in the real and virtual worlds. In the virtual world (as in the real world) ownership of a movable is usually publicised by possession and in the case of an immovable, ownership is often determinable by requesting the information from the virtual world interface (similarly to information obtainable from a deeds registry in the real world). However, unlike in the real world, one can often just select or click on a virtual immovable to immediately see pertinent information about the object that would only be available from a deeds registry in the

real world. This makes the virtual world application of the publicity principle more efficient than its application in the real world.

With regard to the specificity principle, it was shown that all items are always specified in a virtual world, since each item has to be registered in the world's database. This database is not just a registry of items or objects, but part of the very core of the computer code as programming language. This means that both publicity and specificity are system necessities in virtual worlds.

With regard to the principle of transferability, some items, usually with a low value, are freely tradable but disappear after a single use (potions). Other items with an exceptionally high player value (armour and swords) cannot be traded and are considered to be "bound" to a player once he or she has taken possession of the item. Once an item is bound to a player, the code prohibits a player from transferring the item to another player. If a player "drops" or "unequips" such an item, it will not be appropriable by another player and will immediately disappear from the virtual world. In this case, the only way to trade the "bound" item will be to trade the whole avatar.⁸⁰ In other words, one can only transfer the bound object to another player by

⁸⁰ Deenihan KE "Leave Those Orcs Alone: Property Rights in Virtual Worlds" 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 4. This is comparable to accession in the real world and that the object attaches to the avatar and as such becomes part of it. This would make this an illustration of the principle of specificity rather than an exception to transferability. This argument rests on the fact that avatars can be regarded as objects that can be traded themselves. However I do not support this argument due to the fact that the game-concept does not support this.

transferring or selling the complete virtual world account that is associated with that avatar to the other player.⁸¹

With regard to the principle of abstraction, any cross-barrier transaction dealing with virtual property items will be governed by the real world legal systems that have jurisdiction to hear normal property disputes. However, if one accepts that most virtual worlds default to the position where possession equals ownership, it would follow that the game-code enforces an abstract system. When one player drops an item and the other player picks it up, the code does not take any cognisance of any other personal or social exchanges that might have preceded this method of transfer.

Aside from the slightly different implementations of the principles discussed above, it is very interesting that even though developers can in theory create any non-related legal system or set of rules in a virtual world, they are in fact choosing and actively recreating well known legal systems and principles for their players. The nature of virtual ownership was also defined as being based on the principle of possession equating ownership, but it was seen that this is just a baseline that is coded into virtual worlds, and is constantly being adapted and refined by developers in order to make virtual worlds more interesting and believable.⁸² Most virtual worlds

One is supposed to regard an avatar as separate from his or her virtual world possessions and patrimony. See the discussion about the game-conceit in chapter 4 above at 4.6.4.

⁸¹ There are similar examples to this in real world property where the right to lateral support of land cannot be separated from ownership of the land and the co-ownership right in the common property of a sectional title scheme cannot be separated from ownership of the unit.

⁸² Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 151.

make use of more nuanced systems of ownership of virtual property that is usually regulated and facilitated by the game-code.

6 3 Property as rights

6 3 1 *The theoretical distinction between real and personal rights*

The theoretical distinction between real and personal rights forms the basis of the division of the real world law of patrimony into the law of property and the law of obligations.⁸³ This distinction between real and personal rights is important because of the difference in remedies and legal consequences available to the holder of a real or a personal right.⁸⁴ Two main theories have been developed regarding the theoretical distinction between real and personal rights.⁸⁵ These are the personalist theory and the classical theory. The personalist theory gives prominence to the person against whom a particular right operates, while the classical theory harks

⁸³ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 50; Van der Merwe CG *Sakereg* (2nd ed 1989) 58; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 35.

⁸⁴ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 50. Van der Merwe CG *Sakereg* (2nd ed 1989) 58.

⁸⁵ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 3; Van der Merwe CG *Sakereg* (2nd ed 1989) 60-63; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 50-54; Du Bois F (ed) *Wille's Principles of South African Law* (9th ed 2007) 428.

back to its Roman law roots where the same distinction was drawn between real and personal rights.

According to the personalist theory, “a real right is absolute in the sense that it prevails against the world at large, whereas a personal right is relative in the sense that it can only be enforced against a particular person, namely the other party to the obligation.”⁸⁶ By contrast, the classical theory makes the distinction between real and personal rights depend on each having a different kind of object. Accordingly, real rights are mostly concerned with the relationship between a person and a thing and gives rise to the power of control over a thing, while personal rights are concerned with the relationship between two persons and only afford a claim against a person who is a party to the contractual obligation.⁸⁷

Various criticisms have been raised against each of these theories and neither can be said to be the best one. However, both identify certain elements of a real right that correlate with each other. These are the absolute nature of a real right and the fact that a real right confers direct power over a thing.⁸⁸ From these the following

⁸⁶ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 36; Van der Merwe CG *Sakereg* (2nd ed 1989) 60; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 51.

⁸⁷ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 36-37; Van der Merwe CG *Sakereg* (2nd ed 1989) 62; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 50.

⁸⁸ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 37; Van der Merwe CG *Sakereg* (2nd ed 1989) 63. Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 52.

characteristics of a real right can be deduced: the object of a real right is a corporeal thing; a real right affords a direct power with regard to the thing; real rights are in principle absolute and afford a so-called right of pursuit; real rights afford a right of preference in case of insolvency; the maxim *prior in tempore, potior in iure* is applicable when there is a conflict between two or more real rights; the transfer of a real right is accompanied by a certain measure of publicity; and real rights flow from juristic facts like transfer, prescription, occupation and accession and are not dependant on an underlying agreement between two contracting parties.⁸⁹

The problem of how to classify a right as real or personal usually presents few difficulties if a legal system uses a more or less rigid, closed system of real rights.⁹⁰ It becomes more difficult when the range of potential real rights is extended, in which case the basis on which such a new real right ought to be recognised needs to be determined on an *ad hoc* basis. It is easier to make this determination with movables, where delivery in some form or another is usually enough to establish the creation of a real right. The remaining problems arise (and the subtraction test⁹¹ applies) only with regard to land, where registration is required and it is not always clear whether certain limited rights may be registered. Because of this, certain *a priori* requirements were developed by the courts to help determine whether a right

⁸⁹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 38; Van der Merwe CG *Sakereg* (2nd ed 1989) 63-64.

⁹⁰ Van der Merwe CG *Sakereg* (2nd ed 1989) 70; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 49.

⁹¹ See below.

that has to date not been classified as a real right can be recognised as a new category of real right.⁹² To determine whether such a right is real or not, the courts have developed two requirements, namely that the person who creates the real right must have had the intention⁹³ to bind not only the current owner of the land, but also his successors in title; and the nature of the right must have the resulting effect that the registration of the right would result in a “subtraction from the *dominium*”⁹⁴ of the land against which it is registered.⁹⁵

⁹² These criteria were developed with respect to the registration of real rights in land and are not generally applicable to other real rights. In South Africa the Deeds Registries Act 47 of 1937 determines that real rights in land must be registered in the Deeds Register. See in general: Van der Merwe CG *Sakereg* (2nd ed 1989) 71-83; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 40; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 54-65.

⁹³ For more details on this requirement see Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 41-42.

⁹⁴ This is known as the “subtraction from the *dominium* test” and has been used by South African courts since 1893. In 1926 this test was applied by De Villiers JP in the case of *Ex Parte Geldenhuys* 1926 OPD 155 at 162, resulting in the recognition of a new category of real rights. De Villiers JP formulated it as follows: “One has to look not so much to the right, but to the correlative obligation. If that obligation is a burden upon the land, a subtraction from the *dominium*, the corresponding right is real and registerable; if it is not such an obligation, but merely an obligation binding on some person or other, the corresponding right is a personal right, or a right *in personam*, and it cannot as a rule be registered.” For a more comprehensive discussion of this requirement see Van der Walt AJ “Personal Rights & Limited Real Rights: An Historical Perspective & Analysis of Contemporary Problems Related to the Registrability of Rights” (1992) 55 *THRHR* 170-203 at 170-172; Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 42-45 and Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 55-57.

⁹⁵ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 42-45. Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 55-57.

Apart from the classical theory, the personalist theory and the subtraction from the *dominium* test mentioned above, various other tests exist in South African law.⁹⁶ These are the “test in terms of the doctrine of rights”,⁹⁷ the “combination test”,⁹⁸ the “prototype approach”,⁹⁹ the “intention test”¹⁰⁰ and the “contingency test”.¹⁰¹

⁹⁶ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 54-57.

⁹⁷ This doctrine determines that the nature of the object is the decisive element in determining the nature of a right. Therefore the object of a real right will be a thing and the object of a personal right will be a performance. The doctrine has been criticised for not accommodating the concept of incorporeals. See Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 54.

⁹⁸ The combination test builds on the classical theory, but incorporates elements of both the personalist theory and the doctrine of rights. See Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 54. It is formulated as follows by Lubbe: “Whereas real rights are portrayed as having as their object a thing, and entail ‘a relationship between a subject and a thing’, personal rights are characterized as ‘a relationship between a subject and a person’, and have as objects some or other performance by that person.” See Lubbe GF “A Doctrine in Search of a Theory: Reflections on the So-Called Doctrine of Notice in South African Law” (2007) 13 *Acta Juridica* 246-272 at 248.

⁹⁹ The prototype approach basically suggests that when attempting to identify whether a right is real or personal, one should rather look at the typical features of each type of right to make the determination. However, this approach is criticised because many of the typical features are merely consequences of being classified as being personal or real and therefore do not really help to determine the type of right. For more information see Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 54-55.

¹⁰⁰ The intention test is used by the South-African courts in addition to the subtraction from the *dominium* test to determine whether a right with regard to an immovable is real or not. As described above, the test determines that the parties must have had the intention that the correlative duty (that subtracts from the *dominium*) should be binding not only the present owner of the thing, but also on all future successors in title. See Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 57.

A useful tool to use is the one provided by Akkermans, who argues that a *numerus clausus* principle can be used as a gatekeeper or filter to decide whether a right is capable of being a real right or not.¹⁰² According to this approach, the *numerus clausus* principle is the access test to the law of property and “[o]nly after the *numerus clausus* test is passed, other principles of property law, such as specificity and publicity, begin to apply.”¹⁰³ Therefore, if a right passes the *numerus clausus* test it could potentially be classified as a real right. However, the negative conclusion of this test is much stronger. In other words, if a right is incapable of passing through the *numerus clausus* filter it could never be a real right and will always be a personal right.

The value of this test in a virtual world will depend (similarly to the real world) on whether the jurisdiction where one argues for the recognition of a virtual property right makes strict use of the principle of *numerus clausus* or not. If it does, then one would first have to have the virtual property right added to the *numerus clausus*

¹⁰¹ The contingency test makes use of the distinction between a contingent right and a vested right. If a right is contingent, it will be a personal right and the matter is concluded. However, if the right is vested it might be a real right if it qualifies for registration and also passes the subtraction from the *dominium* test. As a practical matter this test just compounds the theoretical difficulties already created by the subtraction from the *dominium* test. For more information see Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman’s The Law of Property* (5th ed 2006) 57.

¹⁰² “Strongly connected to the separation between the law of obligations and the law of property, and the resulting distinction between property rights and personal rights, the principle of *numerus clausus* provides a filter to decide whether the law of property applies to a certain legal relation”: Akkermans B *The Principle of Numerus Clausus in European Property Law* (2008) 7.

¹⁰³ Akkermans B *The Principle of Numerus Clausus in European Property Law* (2008) 565.

before it would be recognised as a real right. As a consequence, if the right is not added to, or included in the *numerus clausus*, the virtual property right will never be accepted as a real right and will therefore only remain a personal right.

6 3 2 *The classical model of property law*

Another useful tool is provided by Van Erp,¹⁰⁴ who did a study in which he tried to find a common model of property law. He found that the European property law traditions share a so-called “classical model” of property law. The classical model of property law is based on the “classical” model of contract law and the “classical” part refers to the 19th century when the model was developed.¹⁰⁵ It relates to how contract law was perceived during the codification period in Europe. Even though this model initially focused on land law and disregarded movables and claims in its original format, it is considered applicable to movables in a modern day-context.¹⁰⁶

This classical model of contract law was rooted in two of the three main ideals of the French Revolution, namely freedom and equality. Because of the importance of

¹⁰⁴ Van Erp JHM “From ‘Classical’ to Modern European law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 1.

¹⁰⁵ Van Erp JHM “From ‘Classical’ to Modern European law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 5.

¹⁰⁶ Van Erp JHM “From ‘Classical’ to Modern European Law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 12. However, Van Erp argues that the classical model of property law has adapted to new developments and should be applicable to movables in a modern context.

these ideals, it was thought that contract law was “embedded in the will of the parties, irrespective of their social status and bargaining power.”¹⁰⁷ By making use of the characteristics of the classical model of contract law, a classical model of property law can also be found.¹⁰⁸ Van Erp concluded that this model can be applied to both the civil law and the common law property systems. Because the civil law was heavily influenced by the ideals of the French Revolution that rejected the feudal property system, Van Erp traces the roots of both the civil law and the common law property systems to just before the French Revolution and finds that both systems shared a common pre-revolutionary heritage. After the French Revolution the feudal system was aggressively abolished in the civil law jurisdictions of Europe, although it remained in force in those countries that followed the common law. Even though the property law systems of the common law countries in Europe are still based (in general) on the feudal system, they have evolved over time to function in much the same way as those of the civil law systems.¹⁰⁹

¹⁰⁷ Van Erp JHM “From ‘Classical’ to Modern European law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 6.

¹⁰⁸ Van Erp JHM “From ‘Classical’ to Modern European Law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 6. For the purposes of this dissertation it is not important to discuss or analyse his method in coming to this conclusion. The article deals with this at length in its entirety.

¹⁰⁹ Van Erp JHM “From ‘Classical’ to Modern European Law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 6. My discussion here refers to the common law in a very general sense. Van Erp makes it clear that England, Wales and Ireland have systems based on feudal law that function similarly to those of the mainland civil law systems. The islands of Guernsey and Jersey still function much closer to their feudal roots. Scotland (which has a mixed legal system

Van Erp looks at the characteristics of the classical model in the civil law traditions and compares them with those in the modern common law property systems. The foundations of the classical model of property was founded on the same underlying ideas that led to the French Civil Code of 1804, which in turn was similar to the classical model of contract law with its references to equality and freedom.¹¹⁰ From a property law perspective, freedom and equality means the following. In the first place it meant freedom from the feudal landholding system. In the second place, it meant the abolition of status in society as a reason for preferential treatment. In the third place, it resulted in the free transferability of property. Finally, it meant the curtailment of ways in which inalienable property could be created.¹¹¹

However, when applied to property, the concepts of equality and freedom conflicted with each other. Equality would mean that private parties should be

similar to South Africa) abolished the feudal system in 2000 with the proclamation of the Abolition of Feudal Tenure etc. (Scotland) Act, 2000 asp 5. Ireland has a bill (the Land and Conveyancing Law Reform Bill 2006) pending before the Oireachtas (parliament) that proposes to abolish the feudal system. Strangely enough the bill proposes that even after the abolition, the use of feudal terminology will continue. The feudal system was replaced for the most part on the continent of Europe and superseded by a system based on Roman law. The feudal estate of *dominium directum* was consequently replaced by the Roman law concept of simple or outright ownership and *dominium utile* was replaced by limited real rights. See in general De Groot H (Grotius) *Inleidinge* 2.33 at 151-152.

¹¹⁰ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 8.

¹¹¹ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 8.

constrained from freely creating (especially positive) duties that have a third party effect.¹¹² In opposition to this, the concept of freedom would require that private citizens should be free to create any duties at their own discretion, even if they should have third party effects. Since the fear of the revival of feudalism was still so strong, freedom was curtailed to benefit equality. The culmination of this development was that freedom of contract did not apply to property rights and consequently property law had to be distinguishable from the law of contract. This led to the requirement that legal relationships should be either contractually or property based.¹¹³

The main characteristics of this 19th century classical model of property law can be summarised as follows.¹¹⁴ There is a clear separation between the law of obligations (especially the law of contract) and the law of property. This means that personal rights and rights that are absolute (*erga omnes*) are distinguished from each other. Positive duties that have the effect of burdening third parties cannot be created through contract and are avoided in the law of property. The freedom of

¹¹² In other words, have the classical characteristic of a real right that is considered to be absolute and enforceable against the whole world.

¹¹³ This strict separation led to the legal doctrine of *Eigenständigkeit des Sachenrechts* in German law. In the Netherlands the Supreme Court ruled that because of the difference in the nature of the law of property and the law of contract, they had to be distinguished with great care. See Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 9.

¹¹⁴ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 10.

parties to create rights *vis-à-vis* third parties are limited by two principles. The *numerus clausus* principle limits the number and content of absolute rights and the transparency principle requires publicity and specificity in terms of these rights. According to the *numerus clausus* principle, the number and content of property rights are limited and the creation, transfer and extinguishing of these rights should be mandatorily regulated.¹¹⁵ There are two different aspects to the principle of transparency, namely publicity and specificity. Van Erp explains it as follows:

“If third parties are to be bound by a right the creation of which happened without their consent, they must at least be able to gather information on such a right (requirement of publicity). If it were unknown what the object is of a proprietary right, third parties would still be insufficiently informed of such a right. Consequently this object has to be clearly defined (requirement of specificity).”¹¹⁶

If the transparency principle were not adhered to, the ideals of freedom and equality would be violated.¹¹⁷

Another characteristic of the classical model of property law is the notion that ownership is the most comprehensive right possible. The holder of any other right to property is the holder of a lesser right than ownership. These lesser rights are seen

¹¹⁵ Van Erp JHM “From ‘Classical’ to Modern European Law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 19.

¹¹⁶ Van Erp JHM “From ‘Classical’ to Modern European Law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 10.

¹¹⁷ Van Erp JHM “From ‘Classical’ to Modern European Law?” 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 10.

as burdening the right of ownership (*iura in re aliena*) and referred to as limited real rights.¹¹⁸ When any of these limited real rights is extinguished, the owner regains all the rights, privileges, powers and immunities¹¹⁹ that are attached to the concept of ownership.

Once a right is classified as a property right (being absolute and enforceable *erga omnes*), four further ground-rules apply that also belong to the classical model.¹²⁰ These are the *nemo dat* rule, the *prior in tempore* rule, the rule that limited rights have priority over fuller rights and the rule that property rights receive special protection from the law. According to the *nemo dat (nemo plus iuris)* rule, a person cannot transfer more rights than he has and according to the *prior in tempore* rule an earlier established property right takes preference over a subsequently established property right. The exception to this rule is ownership, because limited real rights always have priority over ownership.¹²¹ The third rule is that limited real rights have priority over fuller rights. The fourth and final ground-rule is that once it has been

¹¹⁸ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 10.

¹¹⁹ Here Van Erp makes use of Hohfeld's terminology. See Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 10-11; Hohfeld WN *Fundamental Legal Conceptions as Applied in Judicial Reasoning, and other Legal Essays* (1923).

¹²⁰ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 11.

¹²¹ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 11.

established that a right is a property right, it will benefit from special legal protection.¹²²

Compared to the classical model of (civil) property law, the classical model of (common) property law has slightly different characteristics. The main differences are that the common law is still (theoretically if not in practice) rooted in the feudal system; the property concepts are not derived from Roman law and the idea of ownership being the most absolute right does not exist in the common law.¹²³ However, in spite of these differences there are a number of similarities. The principles of *numerus clausus* and transparency apply, as well as the four ground-rules of *nemo dat, prior in tempore*, limited rights having priority over fuller rights and the fact that special protection is given to property rights.¹²⁴

To recap, the basis of this classical model of property law stems from the clear separation between the law of obligations (especially the law of contract) and the law of property, meaning that personal rights and rights that are absolute (*erga omnes*) are distinguished from each other. The freedom of parties to create rights *vis-à-vis* third parties are limited by the two principles of *numerus clausus* and transparency.

¹²² Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 12.

¹²³ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 12.

¹²⁴ Van Erp JHM "From 'Classical' to Modern European Law?" 2006 *SSRN* at <http://ssrn.com/abstract=1372166> (31 Jan 2010) 1-22 at 12.

The *numerus clausus* principle limits the number and content of absolute rights and the transparency principle requires publicity and specificity in terms of these rights.

The benefit of this theory is that it makes it much easier to determine if something like virtual property can be included in the *numerus clausus* or not. It is clear from the discussion about the basic principles of the law of virtual things above that the principles that are found in the classical model of property law are also present in the virtual world. Therefore, since it has already been shown that the principles of *numerus clausus*, absoluteness, abstraction, publicity, specificity, and transferability are applicable to virtual property, the requirements of the classical model of property (*numerus clausus*, *erga omnes* application (absoluteness), abstraction, transparency (publicity), specificity, and transferability) have also been met and accordingly, virtual property will be included as an object of property law under the classical model. However, the inclusion will depend on an *ad hoc* determination if the specific type of virtual property object does indeed fulfil all the requirements of the classical model.

6 3 3 Ownership and limited real rights

“A real right is a claim of a legal subject to a thing as against other persons.”¹²⁵

Although this definition seems to give a clear enough meaning of what a real right is, it is barely the tip of the iceberg when dealing with the concept. There are various

¹²⁵ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 47.

categories of real rights. In South African law, the point of departure when dealing with real rights is that there is a distinction between ownership as the only real right with regard to one's own property (*ius in re propria*) and rights with regard to things that belong to other persons (*iura in re aliena*).¹²⁶ Of all the rights involved, ownership is regarded as the right that (in its unrestricted form) confers the most comprehensive control over a thing.¹²⁷ A right to a thing belonging to another person is called a limited real right, because it is a right that is less than ownership, and as such is limited.¹²⁸

When the word *property* denotes "rights" it is traditionally understood to mean either ownership or limited real rights. It may also be understood to have a wider meaning that includes statutory rights; patrimonial rights, such as immaterial property; or even personal rights.¹²⁹ The differences between ownership, possession and property are extremely important in the Roman-Germanic private law tradition.¹³⁰ Bartolus de Saxoferrato relied on the difference between *dominium* and *possessio* to define ownership in contrast to possession. His medieval definition of *dominium* still

¹²⁶ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 47.

¹²⁷ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 47.

¹²⁸ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 47.

¹²⁹ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 9.

¹³⁰ Van der Walt AJ *Constitutional Property Law* (2005) 80 fn 71.

lies at the heart of the modern civil-law definition of ownership.¹³¹ Patrimonial rights are all rights to objects that have patrimonial value. In other words, these rights are capable of forming part of a person's estate and the patrimonial objects have economic or material value.¹³²

6 3 4 Ownership and possession

The concept of "ownership" is a problematic one inside virtual worlds and it is often easier (and probably more correct) to describe player's property rights towards the things that they "own" in virtual worlds as possessory.¹³³ The reason for this is that the right of ownership is normally inferred from the fact of possession. Because a player is not enabled by the game's code to possess an item "belonging" to another player, the mere fact of possession equates to ownership inside the virtual world.¹³⁴

¹³¹ Van der Walt AJ *Constitutional Property Law* (2005) 80 fn 71. See Bartolus' commentary on D 41.2.17.1 n4 and compare Van der Walt AJ "Bartolus se Omskrywing van *Dominium* en die Interpretasies daarvan Sedert die Vyftiende Eeu" (1986) 49 *THRHR* 305-321.

¹³² Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 9.

¹³³ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 151.

¹³⁴ This is a basic rule of thumb and certain virtual worlds do in fact allow some form of leasing or lending which means that they distinguish between ownership and some holders (or in wider terms, possessors), therefore not always equating possession with ownership. However, one should remember that this rule of possession equating ownership is the *de facto* code based rule with which a virtual world will be programmed. It also forms the foundation of the property systems in virtual worlds that do make a distinction. One should bear in mind that insofar as the system is regulated by

In many virtual worlds, property rights attach to a possessor of an object for as long as the item is carried around by the avatar.¹³⁵ As soon as the avatar drops¹³⁶ the object, it constitutes abandonment and the item immediately becomes *res derelicta*.¹³⁷ The next person to pick up the item will become the new owner.¹³⁸ The example mentioned here is a very simplistic use of the ownership concept in a virtual world and many worlds are far more sophisticated in their approach to the ownership

the game-code, the distinction between ownership and lease is just a more nuanced implementation of the game-code. See the discussion about code as law in chapter 3 above at 3.2; as well as the examples of a more sophisticated system of lease in a virtual world above at 6.2.3.

¹³⁵ This is often referred to as “equipping” an item. See: Sony “EverQuest II Manual” *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 16.

¹³⁶ Or “unequips” the item.

¹³⁷ One should bear in mind that the fact that a legal system (real or virtual) acknowledges abandonment does not mean it equates ownership with possession. All legal systems will in some cases equate possession with ownership by means of original acquisition of ownership, while making a distinction for other instances where ownership and possession is split by for example leasing, lending, pawning, and even servitudes. If virtual worlds recognise such instances they are similar to real worlds. However, this is the basic rule that will be coded into a virtual world on which developers can build and create more nuanced systems of complexity to mimic the real world.

¹³⁸ Grimmelmann JTL “Virtual Worlds as Comparative Law” (2004) 49 *NYL Sch L Rev* 147-184 at 151. For example, Ultima Online’s Playguide describes the procedure and consequences of dropping items as follows: “You can remove items from your inventory and drop them almost anywhere on the screen near your character. If, for some reason, the item can’t be dropped in the location you’ve selected, either an error noise will sound or the item will return to your inventory. A dropped item will stay where it is until it deteriorates naturally or someone picks it up. Dropped items don’t tend to stay around for long.” Mythic “Ultima Online Playguide: Environment Manipulation” (2010) *UO Herald* at <http://www.uoherald.com/node/115> (03 Nov 2010).

concept as well as in the implementation of it via code.¹³⁹ This is due to the pressure on developers to implement more detailed code-based property rules and not only a simple “possession-is-all-rule”.¹⁴⁰

An example of a more complex code-based property system is the one of virtual homeownership.¹⁴¹ The default rule in virtual worlds is that all players have access to all areas at all times. The next more developed rule is to allow only the owner of a house into his virtual home, which is counterintuitive if a homeowner wishes to invite guests over without giving them access to roam freely around the premises. To solve this dilemma, developers have created a nuanced system of levels of exclusionary capacity that they build into the code-based property system. Grimmelmann refers to this (making use of English property law terminology) as a “virtual fee simple” with a new estate carved out called the “right to visit”.¹⁴² This so-called “right to visit” is a perpetual, non-transferable right and is subject to revocation by the owner of the house at any stage, making it a typical precarious right. When applied to civil law, it could be described as a “virtual ownership right” with a new entitlement (or stick in

¹³⁹ For a more detailed discussion and some practical examples, see the section below dealing with the acquisition of virtual property.

¹⁴⁰ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 151.

¹⁴¹ See the discussion of how this is achieved by means of code-as-law in chapter 3 above at 3.2. See also Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 151. For an example of how a developer deals with this issue, see: Sony “EverQuest II Manual” *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 26.

¹⁴² Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 152.

the bundle of ownership that is carved out for eligible visitors) called the “right to visit”.¹⁴³

This right to visit has a measurable effect on the ability of both owner and visitor to interact with their own property as well as the property of others. In the example above about ownership being lost by the dropping of an item, the rules of the acquisition of the object in question was clear. However, if one were to integrate that example into the context of a virtual home in a virtual world, a number of problems arise. One such problem (and a main reason why any player would wish to own a home – virtual or real), would be to have a secure environment where they could store their collected movable virtual items without losing their property rights in it.¹⁴⁴ Apart from this need to store movables, homeowners would also like to have guests over for functions and other social visits. However, what would the consequences be of inviting visitors to a player’s house? Would an item dropped by a guest become

¹⁴³ This will only happen in a virtual world since the level of control that is given by the game-code will mean that a licence is worth a lot more than in the real world. In the real world it is questionable whether a precarious right like this amounts to carving out a stick since in English law this will probably be called a revocable licence. However, as applied to the content of virtual worlds this makes for a good analogy.

¹⁴⁴ Even if items are not taken by other players, they are subject to “decay” as is explained in the Ultima Online Playguide. “In Ultima Online, items that are placed on the ground (i.e. not locked down or secured in a house, or placed in your bank box) can decay. This means that after a period of time, the item will disappear from the game. There's no way to retrieve items that have decayed. To keep your items safe from decaying, you need to either lock them down or place them in a secure container in a house that you own, co-own, or are a friend of, or store them away in your bank box.” See Ultima Online Playguide “Houses: Housing Security” 2010 *www.uoherald.com* at <http://www.uoherald.com/node/216> (10 Oct 2010).

the property of the homeowner, or would any guest that picks up or uses an item in the house become the new owner of that item? It is clear that in this case the general rule of possession equating virtual ownership is not satisfactory. In order to solve this problem, the nuanced system of exclusion mentioned above incorporates a number of new options. A homeowner can choose between certain categories of access that he or she wishes to assign to a visitor. Depending on the category that a homeowner assigns to a visitor, that visitor will not only be able to access certain areas of the home, but the visitor's interaction with the items in the home will also be defined.¹⁴⁵ For example, one visitor might have access to enter the house, but not to pick anything up. Another visitor might just have permission to pick items up in the house but not to remove the item, while yet another visitor might be given circumscribed permission to carry off any item in the home.¹⁴⁶

This sophisticated example does not equate possession with ownership and begins to distinguish between ownership, possession and limited rights of control that could resemble limited real rights or personal rights. In other words, as soon as

¹⁴⁵ See the discussion about code-as-law in chapter 3 above at 3.2 where this issue is discussed in more detail.

¹⁴⁶ The level of complexity with regard to rules of access can become extremely high. For a good example of how such rules work, see Ultima Online Playguide "Houses: Housing Security" 2010 www.uoherald.com at <http://www.uoherald.com/node/216> (10 Oct 2010) and also Dark Age of Camelot Manual "Chapter 4: Accessibility" 2010 www.camelotherald.com at <http://www.camelotherald.com/housing/manual/chapter4.php> (10 Oct 2010).

some complexity is built into the system, the rudimentary virtual world feature of possession equating ownership falls away.

6 3 5 Acquisition of property

6 3 5 1 Introduction

In this section, the methods of acquisition of ownership in a virtual world will be examined in more detail to illustrate how virtual worlds deal with real world property doctrine as well as to see whether there are any similarities between acquisition of ownership in the real world and virtual worlds. In most cases, ownership will be derived from the terms of the contract where a developer gives a user a right to use or own an object of virtual property.¹⁴⁷ Sometimes this is just a use right,¹⁴⁸ but at

¹⁴⁷ Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049; Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 9; Adrian A “Intellectual Property or Intangible Chattel?” (2006) 1 *JICLT* at <http://www.jiclt.com/index.php/JICLT/article/viewArticle/21> (30 Mar 2012) 52–61. See in general: Chheda T “Intellectual Property Implications in a Virtual Reality Environment” (2005) 4 *J Marshall Rev Intell Prop L* 483-508; Dibbell J “Owned! Intellectual Property in the Age of Dupers, Gold Farmers, eBayers, and other Enemies of the Virtual State” 2003 at <http://www.nyls.edu/docs/dibbell.pdf> (12 March 2008); Eriksson A & Grill K “Who Owns my Avatar? – Rights in Virtual Property” 2005 *Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play* at <http://www.digra.org/dl/db/06276.23429.pdf> (02 Dec 2009); Kunze JT “Regulating Virtual Worlds Optimally: The Model End User License Agreement” (2008) 7 *NW J Tech & Intell Prop* 101-118; Miller DC “Determining Ownership in Virtual Worlds: Copyright and Licence Agreements” (2003) 22 *Rev Litig* 435-471; Reuveni E “On Virtual Worlds: Copyright and Contract Law at the Dawn of the Virtual Age” (2007) 82 *Indiana LR* 261-308; Westbrook TJ “Owned: Finding a Place for Virtual World

other times, and specifically in virtual worlds that emulate the real world,¹⁴⁹ users can acquire ownership in these items.¹⁵⁰ There are also a number of other methods of acquisition that closely resemble those found in the real world. Ownership in a virtual item can be ceded, sold, inherited or lost in an insolvent estate.¹⁵¹ It can even be

Property Rights” (2006) 3 *Michigan State LR* 779-812. See also the discussion about the EULA and TOS in chapter 3 above at 3.6.

¹⁴⁸ For example, *World of Warcraft's (WoW)* End User Licence Agreement (EULA) states that “(t)his software is licensed, not sold. By installing, copying or otherwise using the game (defined below), you agree to be bound by the terms of this agreement.” See: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹⁴⁹ As an example, one of the private islands in *Second Life* is called “Brigadoon.” This is a safe, virtual environment where people with Asperger’s syndrome and their care-givers can interact. See Silverstein J “A World Where Anything is Possible” 2005 *abc NEWS* at <http://abcnews.go.com/Technology/FutureTech/story?id=1019818> (01 Dec 2009); Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1049 esp fns 51-52.

¹⁵⁰ For example, in the virtual world of *Second Life* ownership of land is an essential part of the gameplay. For an illustration of how this works see the discussion about estates versus private regions in *Second Life* where Linden Lab (the developer of *Second Life*) describes an estate as follows: “An estate is a term for a group of one or more Private Regions that belong to one Resident. See Linden Lab “Private Regions: About Land” 2011 *Second Life English Knowledge Base* at <http://community.secondlife.com/t5/English-Knowledge-Base/Private-Regions/ta-p/700133> (12 Oct 2011).

¹⁵¹ For a discussion about the problems associated with ownership of digital information and virtual property after someone’s death see: Miller D “Virtual inheritance” 2008 *Economics of Virtual Worlds* at <http://economicsofvirtualworlds.blogspot.com/2008/09/virtual-inheritance.html> (20 Oct 2011); Cha AE “After Death, a Struggle for their Digital Memories” 2005 *Washingtonpost.com* at <http://www.washingtonpost.com/wp-dyn/articles/A58836-2005Feb2.html> (19 Oct 2011); Staff Writer “Digital Privacy after Death - What will Happen to Your Online Profile when You're Gone?” www.lifeinsurancefinder.com.au at <http://www.lifeinsurancefinder.com.au/infographics/what-happens-online-when-you-die/> (19 Oct 2011).

acquired in an original form.¹⁵² The focus of this section will be on examples of acquisition of ownership inside the boundaries of the virtual world.

6 3 5 2 Acquisition of real world property

Before investigating the ways in which virtual property is most often acquired, it would be good to take a brief look at the ways in which one can obtain ownership of things in South African private law. This will provide a real world frame of reference when discussing acquisition of ownership inside a virtual world. In the real world, acquisition of ownership is usually divided into two broad categories, being either original or derivative. The main difference between the two relates to the question of whether the ownership is acquired independently, by operation of law, or in the alternative derived from and dependent on the ownership of a predecessor.¹⁵³ Hence, original acquisition of ownership is usually said to take place when there was no predecessor (with some exceptions, where ownership is acquired by operation of law, which simultaneously extinguishes the title of the previous owner),¹⁵⁴ while

¹⁵² This is discussed in more detail below.

¹⁵³ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 116; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 71, 137; *Unimark Distributors (Pty) Ltd v Erf 94 Silvertondale (Pty) Ltd* 1999 (2) SA 986 (T).

¹⁵⁴ This is not always the case. An example of an exception is expropriation. When property is expropriated, ownership is acquired free from the characteristics, obligations and benefits of the right of a predecessor and the ownership of the predecessor is extinguished as the new title is vested: Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 116.

derivative acquisition takes place when ownership is derived from a predecessor. Original acquisition is a unilateral act and a new right is created in respect of the property being acquired.¹⁵⁵ Derivative acquisition, on the other hand, follows after a bilateral transaction requiring the co-operation of the predecessor in title.¹⁵⁶

Some of the more prominent examples¹⁵⁷ of original acquisition of ownership (with similar counterparts in virtual worlds) are occupation; treasure trove; accession; specification; acquisition of fruits; expropriation and forfeiture to the state.¹⁵⁸ Examples of derivative acquisition of ownership¹⁵⁹ (with similar counterparts in the virtual worlds) are delivery¹⁶⁰ (in the case of movables) and registration (in the case of immovables).¹⁶¹

¹⁵⁵ Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 71.

¹⁵⁶ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 116; Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 72.

¹⁵⁷ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 116.

¹⁵⁸ For a detailed discussion of original acquisition in South African Law see Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 137-174. Of all of these examples, the most important in virtual worlds is occupation.

¹⁵⁹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 148.

¹⁶⁰ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 156. For a detailed discussion of transfer (delivery) as a mode of derivative acquisition of property in South African law see: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 175-200.

¹⁶¹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 165. For a detailed discussion of registration of land as a mode of derivative acquisition of property in South African Law see: Badenhorst PJ, Pienaar JM & Mostert H *Silberberg & Schoeman's The Law of Property* (5th ed 2006) 201-239.

6 3 5 3 Acquisition of virtual property

6 3 5 3 1 Introduction

It has been shown above¹⁶² that the concept of “ownership” is a problematic one inside virtual worlds and it is often easier to describe players’ property rights towards the things that they “own” in virtual worlds as possessory.¹⁶³ From the example of virtual home-ownership discussed in the section on ownership and possession above,¹⁶⁴ it has also been seen that in most cases losing possession of a virtual item would constitute abandonment and the dropped item would become *res nullius*. With this in mind, one can now move on to a discussion of how property is acquired in virtual worlds.

6 3 5 3 2 Original acquisition in virtual worlds

From the discussion above it is clear that the most important form of acquisition of virtual property is derived from having possession of a virtual thing. This leads to the central theme of how a player gets possession and/or ownership of an object of virtual property. As mentioned above, the methods of acquisition would usually

¹⁶² See the discussion in chapter 5 above.

¹⁶³ Grimmelman JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 151.

¹⁶⁴ See the discussion at 6.3.4 above.

depend on the allowances made for transfer and possession by the code and by extension the laws of the virtual world itself.¹⁶⁵ Original acquisition is usually achieved by means of occupation of property (*occupatio*). In the virtual world occupation of property frequently happens by means of capture of wild animals or monsters.¹⁶⁶

In most virtual worlds the best way to increase one's virtual patrimony is by "the taking of wild monsters".¹⁶⁷ The capture and killing of wild animals or monsters inside virtual worlds often represent the best way of acquiring treasure or "loot". Although it is legally significant to be the player who slays a monster, the possession of the monster's corpse is only of legal significance for a short time since it is not the monster's corpse that is important, but rather the perceived value of the objects that these monsters drop when they are killed.¹⁶⁸ Grimmelmann notes that "[i]n the large crop of quasi-medieval games, with their strongly fantastic overtones, the capture of

¹⁶⁵ See in general: Lessig L *Code and Other Laws of Cyberspace* (1999).

¹⁶⁶ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 154. Other methods include, amongst others, manufacture / specification and treasure trove. See the discussion about interaction with the virtual world in chapter 2 above at 2.4.5 as well as the discussion about manufacture and treasure below.

¹⁶⁷ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 154.

¹⁶⁸ See the discussion about the automatic awarding of experience points below.

wild animals is nothing less than the principal source of wealth. The single most profitable 'industry' is hunting monsters and looting their corpses."¹⁶⁹

In the case of capture and killing of the monsters, the property rules contained in the game-code are highly developed, but do not provide for all the available circumstances that present itself in the game. For example, a game like *EverQuest* automatically awards experience points¹⁷⁰ to the player who kills a monster. If a group of players work together to slay a monster, the experience points are distributed by the game amongst the players, usually in proportion to their contribution to the killing. However, the loot that the monster drops when killed is not automatically assigned to any specific player and becomes *res nullius* as soon as it is dropped.¹⁷¹ The first player to pick up the treasure becomes the owner of it. Although the game-code would seem to create certainty as to the ownership of the picked-up treasure, the player community has developed a set of normatively binding

¹⁶⁹ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 155.

¹⁷⁰ These experience points are valuable because they contribute to the development of the player's avatar, from a vulnerable inexperienced weakling in the beginning of the game, to a superior character with enhanced abilities at the higher levels of the game. One of the aims of most virtual worlds is that the player's avatar should be able to proceed to the next level (called levelling up). This is achieved by the acquisition of property and experience points.

¹⁷¹ DaCunha N "Virtual Property, Real Concerns" (2010) 4 *Akron Intell Prop J* 35-72 at 40. For a discussion about how this allocation of experience points functions and their part in the virtual world economy see: Malone KM "Dragon Kill Points: The Economics of Power Gamers" 2007 *Games and Culture* forthcoming at <http://ssrn.com/abstract=1008035> (18 May 2009).

rules relating to who is allowed to pick up the treasure.¹⁷² It is important to note that players will often deviate from the code-based rules to follow rules based on their own social understandings.¹⁷³

Apart from the capture and killing of wild beasts as a method of obtaining virtual property, certain other interesting methods of acquisition are available to the player. Mining and farming are examples of how raw things are taken out of “nature” and made into useful and saleable things.¹⁷⁴ Take this account of one player’s labours for example:

“In addition to the four hours of clicking, Stolle had had to come up with the money for the deed. To get the money, he had to sell his old house. To get that house in the first place, he had to spend hours crafting virtual swords and plate mail to sell to a steady clientele of about three dozen fellow players. To attract and keep that clientele, he had to bring Nils Hansen's blacksmithing skills up to Grandmaster. To reach that level, Stolle spent six months doing nothing but smithing: He clicked on hillsides to mine ore, headed to a forge to click the ore into ingots, clicked again to turn the ingots into weapons and armor, and then headed back to the hills

¹⁷² If one player picks up the treasure that appears from another player’s efforts, it is considered “kill stealing”. Even though the game-code would not penalise this action, the other players will take action against a perpetrator. For more info see Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 155-156. See also the discussion about user-created law in chapter 3 above at 3.3.

¹⁷³ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 156. See also the discussion about user-created law in chapter 3 above at 3.3.

¹⁷⁴ Compare this to the Lockean labour theory as normative justification for the acceptance of virtual property in chapter 4 above at 4.4.2. Here it is quite clear that a player “mixes” his or her own labour with a resource taken in a raw state from nature.

to start all over again, each time raising Nils' skill level some tiny fraction of a percentage point, inching him closer to the distant goal of 100 points and the illustrious title of Grandmaster Blacksmith.”¹⁷⁵

The example given here includes manufacture or specification. In real world law the manufacturer becomes owner of the new product even if he used another person's raw materials, as long as it was without permission or agreement. In a virtual world it is also possible that (as in the real world) manufacture can take place at the request of another player. This will be a case of the manufacturer making the product at the behest of the player and with the resultant effect that ownership passes to the player who employed the manufacturer for this purpose. Certain games also provide mechanisms for combining already existing things into new composite things (accession),¹⁷⁶ and others have mechanisms for creating new things from a code level.¹⁷⁷ This can resemble real world accession and manufacture where the code is designed to allow one virtual item to become a part of another virtual item (accession) or where different virtual items can be consumed in the process of manufacturing a new discrete virtual item (manufacture).

¹⁷⁵ Dibble J “The Unreal Estate Boom: The 79th Richest Nation on Earth Doesn't Exist” 2003 *Wired.com* at http://www.wired.com/wired/archive/11.01/gaming_pr.html (10 Oct 2010).

¹⁷⁶ For example, in *Ultima Online* players are sometimes required to combine items to produce new items. See Mythic “Ultima Online Playguide: Environment Manipulation” (2010) *UO Herald* at <http://www.uoherald.com/node/115> (03 Nov 2010).

¹⁷⁷ This is a prominent feature of *Second Life*. See in general Ondrejka C “Escaping the Gilded Cage: User Created Content and Building the Metaverse” (2004) 49 *NYL Sch L Rev* 81-101 at 84.

¹⁷⁷ Duranske BT “SLPTO Offers Second Life Content Creators Suite of Intellectual Property Protection Tools” 2007 at <http://www.virtuallyblind.com> (12 March 2008).

Apart from ownership of the virtual thing, the creator of the virtual item is sometimes given intellectual property rights in the newly created thing. This is such a prominent aspect of the virtual world *Second Life* that there is even an intellectual property office in *Second Life*.¹⁷⁸

6 3 5 3 3 Derivative acquisition in virtual worlds

Apart from being able to pick up or take an item that is lying around as *res derelicta*, there is a thriving economy that operates inside most virtual worlds and facilitates derivative acquisition.¹⁷⁹ Players can make use of auction houses,¹⁸⁰ bazaars and other in-game trading facilities like shops, taverns and town commons to transfer property – and consequently ownership.¹⁸¹ The benefit of using the in-game provided mechanisms for transferring property is that the code usually provides a secure

¹⁷⁸ Duranske BT “SLPTO Offers Second Life Content Creators Suite of Intellectual Property Protection Tools” 2007 at <http://www.virtuallyblind.com> (12 March 2008).

¹⁷⁹ Deenihan KE “Leave Those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 5; Castronova E “On Virtual Economies” (2003) 3 *The International Journal of Computer Gaming Research* at <http://www.gamestudies.org/0302/castronova/> (22 May 2009).

¹⁸⁰ Deenihan KE “Leave those Orcs Alone: Property Rights in Virtual Worlds” 2008 *SSRN* at <http://ssrn.com/abstract=1113402> (22 May 2009) 1-51 at 5.

¹⁸¹ See for example the trading options employed in *World of Warcraft*. Blizzard “World of Warcraft Game Guide: Trading” 2010 *World of Warcraft* at <http://www.worldofwarcraft.com/info/basics/trading.html> 10 Oct 2010. Also see the trading and selling methods employed in *EverQuest*. Sony “EverQuest II Manual” *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 22-24.

transaction facility. The property is kept by the game-code and only transferred to the buyer as and when funds are transferred. An example of this is found in the *World of Warcraft* game-guide:

“Select a character, and then right-click on its portrait/name. You can also do this for player portraits. This will launch the trade screen with another player. Place your items in the top portion of the screen. Once you are satisfied with the other player's trade, hit "Trade" button. To trade money, open up your backpack and hold down shift while clicking on the money amount. You can then select the amount of money and drag it over to the trade window. You can also drag an item or money from your bags and drop it on another player to initiate a trade window. Make sure the other player gives the correct type of coin in the trade. When you have a trade window open, you can right-click an item to move it to the trade window.”¹⁸²

Similar to the real world, immovable property such as houses and virtual land is also tradable in virtual worlds and ownership of these objects frequently changes. Most virtual worlds that provide for individual ownership of virtual immovable property also provide some type of registration system that emulates a real world

¹⁸² Blizzard “World of Warcraft Game Guide: Trading with another Player” 2010 *World of Warcraft* at <http://www.worldofwarcraft.com/info/basics/trading.html> 10 Oct 2010. A similar function exists in EverQuest. See: Sony “EverQuest II Manual” *EverQuest II* at http://everquest2.com/manual/EQII_Manual.pdf (03 Nov 2010) 1-71 at 23-24.

deeds registry.¹⁸³ Take for example this extract from the Dark Age of Camelot Manual:

“Please note that only Personal Homes can be sold, not Guild homes. Should you decide to sell your home to a fellow player, there are a few steps to follow. The first thing you need to do is to get the **title** to your home. You can purchase the house **title** to your home in the housing market area from the deed NPC. Once you have the house title, it works just like any other item transaction. Hand the house title to the player you wish to sell it to, decide on the price, and then both of you hit accept. You can only sell a house to someone who doesn't already own a home. Once you have the house title, it works just like any other item transaction. You must stand on the lot where the house is [, t]hen hand the house title to the player you wish to sell it to[.] Decide on the price[, t]hen both of you hit accept[.] Please note: you can only sell a house to someone who doesn't already own a home.”¹⁸⁴

The example above mentions that the house title is transferred from player to player and although this might look like a normal “physical” transfer of a document, the game-code arbitrates the transaction and immediately records the details of the

¹⁸³ See for example the mechanism facilitated by the game-code in Ultima Online: Mythic “Ultima Online Playguide: Houses: Selling Your House to Another Player” (2010) *UO Herald* at <http://www.uoherald.com/node/213> (03 Nov 2010).

¹⁸⁴ Dark Age of Camelot Manual “Chapter 3: Maintenance and Management: Selling your Home” 2010 *www.camelotherald.com* at <http://www.camelotherald.com/housing/manual/chapter3.php#5> (10 Oct 2010).

transaction as well as that of the new owner in a central database.¹⁸⁵ Therefore, it would seem as if derivative acquisition of property occurs in much the same way in the virtual world as in the real one and mostly to satisfy the publicity principle.

6 3 5 4 Conclusion

In the section above, I discussed a number of ways in which ownership of virtual property can be acquired inside a virtual world. In order to understand the procedure of acquisition of virtual property I briefly discussed how virtual world property based systems operate when they deal with ownership. The purpose was to determine if there were similarities between real-world and virtual world acquisition of ownership. It was found that in most instances acquisition of property in virtual worlds mimics the real world. However, unlike in the real world, the methods of acquisition usually depend on the allowances made for transfer and possession by the code and by extension the laws of the virtual world itself. This has the added effect that since the game-code arbitrates most forms of acquisition, there is usually no uncertainty about the identity of the owner or the specific object that is acquired. However, even though the game code arbitrates original acquisition in its most basic form (*occupatio* where possession equals ownership), it was shown that in certain instances the player community will deviate from the code-based rules to follow a set of

¹⁸⁵ See Mythic “Ultima Online Playguide: Houses: Selling your House to another Player” (2010) *UO Herald* at <http://www.uoherald.com/node/213> (03 Nov 2010).

normatively binding rules based on their own social understandings about who is allowed to pick up a specific virtual property object.

It was seen that original acquisition is usually achieved by means of occupation of property (*occupatio*) in the form of the capture of wild animals or monsters. Other interesting methods of acquisition are also available to a player and certain games provide mechanisms for combining already existing things into new composite things (accession), while others have mechanisms for creating new things from a code level. This can resemble real world accession and manufacture.

In terms of derivative acquisition of ownership, players often use auction houses, bazaars and other in-game trading facilities like shops, taverns and town commons to transfer property – and consequently ownership. It was shown that a benefit of using the in-game provided mechanisms for transferring property is that the code usually provides a secure transaction facility. It was also shown that most virtual worlds that provide for individual ownership of virtual immovable property also provide some type of registration system emulating a real world deeds registry. It would seem as if derivative acquisition of property occurs in much the same way in the virtual world as in the real one and mostly to satisfy the publicity principle.

To conclude, even from the limited examples discussed above it has transpired that one can obtain ownership of property inside of a virtual world via either original or derivative means. The most prominent method of obtaining original acquisition of virtual property is by occupation of a thing that is *res nullius*, while the methods of obtaining derivative acquisition follows the real world, where movables are acquired

through transfer of ownership by means of delivery and immovables by means of registration.

6 4 Conclusion

The focus of this chapter was on property rights as they are encountered in virtual worlds. The chapter starts with a discussion of both real world and virtual world principles of property law. From the analysis of these principles, it became clear that virtual property rights are quite similar to real world property rights and follows many of the same principles as real world property law. Although the same principles apply in virtual worlds, there are numerous exceptions in the way in which the real world principles apply in a virtual world. This is because it is possible to code a virtual world's legal system to represent any of the real world legal systems, or an amalgam of them.

It was shown that the principle of *numerus clausus*, together with the requirement in the law of things that a thing must be a corporeal to be the object of a real right, are the main stumbling blocks for the recognition of virtual property in South African law. It is clear that the questions that relate to the legal nature of assets in virtual worlds tend to mirror the questions that arise in connection with intangible rights in the real world and these questions lead to understandable confusion about the classification of these rights as contractual or property rights. To clear up this confusion, it is proposed that the principle of *numerus clausus* should be applied to virtual property so that courts that have to deal with disputes relating to virtual property could have fixed property types or categories to which they can resort.

With regard to the principle of absoluteness, it was shown that (as in the real world) both players and developers want to protect their virtual property interests by means of real rights rather than personal rights. They want this since the remedies that will be available to them will be much stronger than in the case of weak personal rights. The principle of absoluteness is sometimes coded into the system and players can enforce property rights against other players with regard to their virtual property. The distinction between ownership, limited real rights and personal rights also exists in virtual worlds.

The principle of publicity is applied very similarly in the real and virtual worlds. In the virtual world (as in the real world) ownership of a movable is usually publicised by possession and in the case of an immovable, ownership is often determinable by requesting the information from the virtual world interface (similarly to information obtainable from a deeds registry in the real world). However, unlike in the real world, one can often just select or click on a virtual immovable to see pertinent information immediately about the object that would only be available from a deeds registry in the real world. This makes the virtual world application of the publicity principle more efficient than its application in the real world.

Regarding the principle of specificity, unlike in the real world where exceptions to the rule occur, transfer of virtual objects will always happen on an individual item basis, since this is inherent in the binary storage system of a virtual world. This database is not just a registry of items or objects, but part of the very core of the computer code as programming language. Even though these principles differ

slightly in the real and virtual worlds, it was shown that both publicity and specificity are still system necessities in virtual worlds.

With regard to the principle of transferability, it was shown that most virtual world objects were transferable in the same way as their real world counterparts. However certain items with an exceptionally high player value (armour and swords) cannot be traded and are considered to be “bound” to a player once he or she has taken possession of the item and then becomes untradeable (and in effect a *res extra commercium*). In this case, the only way to trade the “bound” item will be to trade the whole avatar.

With regard to the principle of abstraction, any cross-barrier transaction dealing with virtual property items will be governed by the real world legal systems that have jurisdiction to hear normal property disputes. However, since most virtual worlds default to the position where possession equals ownership (at least to some extent), it follows that the game-code enforces an abstract system and the game-code does not take any cognisance of any other personal or social exchanges that might have preceded this method of transfer.

In spite of the exceptions mentioned above, they do not negate the general conclusion that the principles of *numerus clausus*, absoluteness, publicity, specificity, transferability and abstraction feature in both the real world and virtual worlds.

The next section is a progression from the discussion in the previous chapter of property as the objects of rights and deals with property as rights. The question of whether virtual property rights are contractual or real remains an open one without any definitive answers. While it usually presents few difficulties if a legal system

uses a more or less rigid, closed system of real rights, it becomes more difficult when the range of potential real rights is extended, in which case the basis on which such a new real right ought to be recognised needs to be determined on an *ad hoc* basis. It is easier to make this determination with movables, where delivery in some form or another is usually enough to establish the creation of a real right. However, it is possible to use certain tools to help determine on an *ad hoc* basis whether a virtual property right can be accepted as a new type of real right. In terms of the classical model of property law, if a virtual property right fulfils all the requirements of the classical model of property law, that right will be a property right. The same goes for the application of the *numerus clausus* filter/test to virtual property. If a virtual property right is included in the *numerus clausus* it should be classified as a real right and not a personal right.

This discussion was followed by a look at how ownership and limited real rights and ownership and possession are dealt with in virtual worlds. From this analysis it became clear that there is a distinction between ownership and limited real rights in virtual worlds, but that the occurrence of limited real rights in virtual worlds is still the exception rather than the rule. This ties into the analysis of the distinction between ownership and possession in virtual worlds, since in most virtual worlds ownership can be said to stem from the possession of a virtual object. To illustrate how property rights work inside a virtual world, I analysed methods of acquisition of virtual property and found that the methods mimic those found in the real world. It became clear that with regard to the original acquisition of virtual property, *occupatio* of a *res nullius* is the main method of acquisition. As in the real world, in terms of derivative

acquisition, movables are acquired through transfer of ownership by means of delivery and immovables usually by means of registration.

From the discussion above it is clear that inside a virtual world, property rights are treated and function very similar to their real world counterparts, aside from some idiosyncrasies relating to the code-based nature of virtual worlds. However, when it comes to the question about virtual property rights being recognised in the real world as real rights, it is necessary to bear in mind that from a real world perspective the virtual property rights are still mostly based on contract, not real, and therefore weak by comparison with their real world counterparts. This once again highlights the *ad hoc* need for real world recognition of virtual property rights as real rights where weak personal rights cannot provide adequate protection.

Chapter 7: Conclusion

7 1 Conclusion

In essence, a virtual world is a computer moderated, persistent, virtual environment, which is interactive and a place where multiple individuals participate. In chapter one it was said that this dissertation investigates how virtual property functions inside virtual worlds. In that context, the main question is whether virtual property is similar to, or should be treated like, real world property. The principal research question is to determine the (real world) legal status of property interests in virtual worlds. A preliminary question is therefore whether it is worthwhile to recognise and protect virtual property in real world law. Assuming that it is worthwhile, the next question is whether it is indeed possible to recognise and protect virtual property in real world law, given the differences between the real world and virtual worlds.

To answer these questions, the dissertation in chapter two provides a discussion of the historical roots of virtual worlds in order to understand the nature and importance of the virtual worlds from a social and an economic perspective. The examination of the historical foundations of virtual worlds demonstrated that the growth of virtual worlds is an important social manifestation and showed that these worlds affect people's everyday lives in many significant ways. A brief glimpse into the current and possible future developments of virtual world immersion suggests that the social, economic and technological importance and potential of these worlds certainly make it worthwhile to protect virtual property in real world law.

In chapter three the creation and regulation of legal relationships regarding virtual worlds are discussed together with the sources of virtual world law. As the first source of virtual law, computer code refers to the programming used to create the game, which at its most basic level consists of binary code (ones and zeros). The laws created by means of computer code do not need to be enforced by real-world law, since enforcement is automatically done by the game (code) itself. Because of this characteristic of virtual worlds, there is no room for circumventing the rules as the outcome of any given set of rules and actions is always pre-determined by the code. This creates certainty in the legal system of the game and may provide very strong protection for (or complete absence of) certain virtual property interests. This protection of virtual property interests is unlike anything known in real world law and may, at least in some instances, obviate the necessity for any real world recognition or protection of virtual property interests. Similarly, the efficacy of this source of law in virtual worlds renders it unnecessary to recognise the affected virtual property interests in real-world law just to protect them.

The second source of law discussed in chapter three is the in-game customary or common law that develops between the players themselves, outside of the developer's sphere of influence. This process is sometimes spontaneous, but at other times it is carefully planned. The law that emerges from this source is policed and enforced by the players themselves, without the intervention or help of the developers. The enforcement of these laws is surprisingly effective and innovative, even though there are some problematic issues surrounding the problem of self-help

and vigilantism. In some instances, this source of law could protect virtual property interests, without any need for real world recognition or protection.

It is clear that courts are willing to recognise and protect virtual property interests, at least by making use of the public law measures provided in criminal law, for example against theft. This appears from an analysis of case law that shows how an in-game legal system affects both developers and players with regard to power, control and executive law making inside a virtual world. However, criminal sanction is not a very sophisticated method of protection of property interests and the analysis of case law indicates a need for development of more sophisticated protection measures, possibly via property rules.

The final and most important source of virtual law is the contractual terms contained in the “End User Licence Agreements” (EULAs) and “Terms of Service” (TOSs). As a source of virtual world law, the EULA is the instrument that determines how rights and obligations concerning the virtual world are created and controlled by developers. As the most important source of virtual property, the EULA gives rise to (and is subject to) real world law and is the pivotal point of reference for discussing the legal relationship between player and developer. As an illustration of this point, certain key points of the EULA of *World of Warcraft* are analysed in chapter three, illustrating various comparative similarities with the TOS of *Second Life*. From the analysis of the EULA and TOS it is clear that players’ rights are actively limited to the extent that the only right a player normally will acquire from a developer is a limited license to use the game. Developers prefer this situation because it protects their own interests, often to the detriment of the players’ interests. However, the fact that

property rights are restricted by means of contract does not automatically mean that a player does not have any property-like protection. However, property interests can be protected by personal rights deriving from contract, for instance if the real world law recognises the importance of these interests and provides property-like protection for them, generally by means of consumer-type legislation. Without such additional recognition and protection, these personal property interests will usually be weak personal rights that might prevent the development of a sophisticated property system. This leads to the discussion, in chapter four, of the question whether virtual property should be recognised and protected as property in real-world law.

The economic importance of virtual worlds is explored in chapter four and it transpired that the massive commercial side of virtual worlds underscores the real world importance of the virtual worlds where a substantial number of participants spend their time, energy and money. Virtual worlds show a steep growth rate and because their economies are mixed, together with a continually increasing subscriber base, they will continue to be an economic force of note. The legal implication of this conclusion is that such a large economy will invariably result in the creation of property interests in a similar way to the creation of property interests that stem from the development of large economies in the real world. It is clear that players do indeed have significant financial interests in their virtual property. It is also clear from the volume of economic investment and the regulation thereof that there will inevitably have to be suitable recognition and protection of property interests and principles that apply to the virtual world environment. Virtual worlds deserve serious

academic attention because their use constitutes an important new societal development that continues to evolve aggressively. To underline the need for real-world recognition and regulation, the addictive nature of virtual worlds is discussed in chapter four to show the dark side of the virtual world phenomenon, which helps to strengthen the argument of the importance of virtual worlds in society.

The question of whether it is justified to protect virtual property interests (especially via property rules) is further answered in chapter four by discussion of three normative theories. These are the Lockean labour theory, the utilitarian theory and Radin's personhood theory.

The first theory is based on Locke's labour theory. This theory is used most often by players to justify their demand for recognition and protection of their virtual property interests. The main tenet of this theory is based on the fact that players expend time and effort to acquire their virtual property and should therefore have a recognisable property interest in it. Counter-arguments to the application of this theory are based to a certain extent on the misinterpretation and mischaracterisation of Locke's work. It is concluded in chapter four that, if one is willing to adapt Locke's theory to the needs of current society and the novelty of the subject at hand, it does indeed provide some justification for recognition and protection of virtual property.

The second justification is based on the utilitarian theory of the felicific calculus. This justification states that a private property interest should be granted to someone (or something) if the overall effect of granting it would be that overall utility or social welfare would be increased. With this in mind, in certain instances it would be better

to allocate property interests to players rather than to leave their interests in the hands of the developers, because allocating individual virtual property interests would increase overall utility while not doing so will not have the same effect.

The third justification is argued in terms of Radin's personhood theory. In certain instances, recognition of property rights is justified when the relevant objects are inseparably bound up with the personality and liberty of their owner. Due to this, one will sometimes find that even though two different parties (player and developer in this case) both have a legitimate property interest in a specific object of virtual property, the one party is more closely or personally connected to the object. The theory states that that person should be allocated property rights, possibly to the detriment of the other.

Just like in the real world, when applied to virtual world situations, each of these normative theories has limits and qualifications. In certain instances, it makes sense to rely on them, and in others, it does not. At least in some instances these three normative theories provide strong normative grounds for the recognition and protection of property rights in virtual assets. Limitations imposed on these rights will differ from theory to theory and will need to be dealt with on an *ad hoc* basis. To the extent that the application of these theories to virtual property will be problematic due to non-essential details, the theories could and should be adapted and developed to deal more effectively with the modern requirements of a constantly changing society and legal landscape. None of these theories can be applied on its own as a proper justification for allocating property rights without recognising that certain elements will have to be adapted to allow the theory to be applied properly to virtual property.

This does not pose a serious problem and collectively the three theories justify the conclusion that virtual property should, at least in some instances, be recognised and protected in terms of real-world property rules. The question is how to allocate and restrict these rights rather than whether they exist and should be recognised.

Some of the problems regarding the recognition and enforcement of virtual property rights, as well as the so-called pitfalls of virtual property that refer to arguments for and against the recognition of virtual world property, are analysed in chapter four. According to Bartle, the existence of virtual property as a practical phenomenon has a major side effect. This side effect is that when real-world property laws are activated (applied to the virtual world), it stops the game from being “just a game”. Different people who participate in virtual worlds want different things from these worlds and not all of their wants are compatible. The biggest pitfall, the uncertainty of the status of virtual property in law, is due to the newness of the concept of virtual property and the lack of precedent in law as well as practice. This creates uncertainty for all parties involved with virtual property. While it is clear that there are good reasons to recognise virtual property, at least in some instances, one should take care not to lose sight of the gaming and entertainment aspects of virtual worlds. Especially in instances where virtual property is created, used and maintained solely for entertainment purposes, one should be loath to regulate virtual property by means of the real-world legal system. However, as soon as there is a measurable interaction between the real and virtual worlds and virtual property is having an effect in the real world, it is clearly inevitable that virtual property should be recognised in the real world. At least in some instances, suitable recognition and

protection of those rights might exceed the limited protection provided by the personal rights created in the EULA.

In chapter five, the virtual property concept is investigated in view of the previous conclusions about the justifiability and necessity for recognition. By this stage it is clear that there is such a thing as virtual property. The problem is that it is not generally recognised as an object of property rights and protected by real-world legal systems and courts. If one were to concede that a player can have rights in virtual property (exceeding the contractual rights acquired from the EULA), it must also follow that those rights in the virtual objects should be protectable and enforceable, even beyond the scope of the contract. Analysis of the diverse meanings attached to the term “property” shows that no single definitive meaning can be attached to the property concept. The meaning of “property” covers a whole spectrum from a tangible object (thing) to intangible patrimonial assets that are as ephemeral as rights that are the objects of other rights. The meaning is often determined by the context in which it is used and typically, any patrimonial interest that has value can be regarded as property in the wide sense of the term.

Property has a wide meaning in the Anglo-American private-law tradition, which tends to focus on rights in property rather than on property objects and is therefore not side-tracked by concerns about the tangible nature of property objects. In this legal tradition there is virtually no distinction between what is regarded as property in private and in constitutional law. Because of this wide approach, it is not difficult to include virtual property as part of Anglo-American private property law or to protect it in constitutional law. Virtual property interests will be recognised as property

whenever there is enough justification for doing so. From the discussion in chapter four, it is clear that there is enough social, economic and normative justification for such recognition. Therefore, in Anglo-American law virtual property could be recognised relatively easily as property and thus protected against both private and state interferences, in both private and constitutional law.

In the Roman-Germanic tradition, the focus is usually on the objects of property. Because of this approach, property is usually narrowly interpreted in private law because it is traditionally associated with tangible things. However, this narrow application of the private law concept of property is not universally accepted, at least not in South African law. This can be seen by the trend in South African law according to which certain exceptions to this principle are recognised and by the arguments for the widening of the definition of property in general. It is clear that in South-African private law the narrow interpretation of property as tangible objects is an archaic notion that should (arguably) be replaced by a wider understanding of property that includes at least certain intangible things. This will allow for recognition of virtual property in private law, especially if the right is recognised and protected in legislation. In the continental civil law systems based on Roman-Germanic law, property is also in principle associated with tangible objects, but in those systems the tendency is to recognise a wider category of property (*goederen*) that could include intangibles. Furthermore, in the civil law systems property is in any event defined more widely in constitutional law than in private law. Because of this tendency in private law and the wider constitutional definition, one can therefore conclude, as far as the Roman-Germanic tradition is concerned, that it is possible to recognise and

protect virtual property in constitutional law even if it is not recognised in private law. Furthermore, the traditionally narrow private law definition is also likely to allow for inclusion of at least some intangible property objects. The result is comparable to that situation in Anglo-American law, namely that virtual property can in principle be recognised and protected as property, both in private law (against private interferences) and in constitutional law (against state infringements).

From the analysis above one can conclude that it might be easier to accept that virtual property will be included as property in the Anglo-American legal systems and that it might be harder (but not impossible) to achieve the same recognition in Roman-Germanic systems. If a virtual item cannot be recognised as a thing according to South African private law because it is incorporeal, an exception to the rule could be created, if necessary by legislation. Otherwise, it could be accepted that the incorporeal aspect of virtual things, as an exception to the rule, does not have to stand in the way of their recognition as property. Furthermore, virtual property will probably be recognised reasonably easily as property for purposes of constitutional protection, in other words against state interferences.

The real-world classification of things is applied to virtual things in chapter five in order to see if and how they can be compared and where they differ. These are the characteristics of corporeality; being external to a person (an avatar); an independent nature that is appropriable; and being of use and value to a person (an avatar). While this comparison shows that virtual things have many of the same characteristics as their real world counterparts, it was discovered that the characteristics of corporeality and externality have to be applied and interpreted

differently in a virtual world. However, it was shown that these differences do not necessarily detract from the argument that virtual things can and should be recognised as property in the real world. The characteristic of corporeality is not necessarily a problem because real world property law already recognises certain exceptions to this requirement, and the requirement of externality is not necessarily problematical because, although they are similar in a virtual world, avatars are not humans.

The form and function of a thing therefore seems to be similar in the real world and in the virtual world, even though the characteristics of real-world property do not apply perfectly in a virtual world. Although the subjects of property differ in the real and the virtual world, the focus here is rather on the objects of property than the subjects. Furthermore, the discrepancies between the characteristics of virtual things and real world things might be less of a problem because it is not necessarily clear that so much emphasis should be placed on the objects of property rights – the modern tendency seems to be to place more emphasis on the rights rather than the objects.

The results of the comparative analysis show that while it is possible to deviate from the classification of real world things in a virtual world (due to the creative power of the code), the classification of virtual things tends to follow its real world counterpart in almost all circumstances. The only real exception was the classification of a virtual property object as fungible or non-fungible. The difference between fungible and non-fungible things is not as important in virtual worlds where a lot of the *res nullius* items that are available for appropriation by players are

considered to be fungible. This is because many items are of a generic nature. For example, when there are 2 000 silver swords lying around in a forest, one of these swords can easily be replaced by another silver sword of the same kind. However, the more valuable a virtual world thing is, the more likely it is to be unique and non-fungible. With this in mind it should be clear that, if anything, the similarities between the classification of real world things and virtual world things strengthen the case for recognition of virtual property in the real world.

To summarise, if a virtual item cannot be recognised as a thing according to South African law merely because it is incorporeal, an exception to the rule can be created, if necessary by legislation. Otherwise, it could simply be accepted that the incorporeal aspect of virtual things is not an insurmountable obstacle to its recognition as property since the same has been done, as an exception to the rule, in the case of other intangible interests. Another argument to the same effect is that virtual items can be regarded as corporeal things because of the nature of the storage, access and manipulation of the items in the virtual world that is facilitated by modern technology.

The focus of chapter six is on property rights as they are encountered in virtual worlds. The chapter started with a discussion of both real world and virtual world principles of property law. From the analysis of these principles, it became clear that virtual property rights are quite similar to real world property rights and follow many of the same principles as real world property law. Although the same principles apply in the real and in virtual worlds, there are exceptions in the way that the real-world principles apply in a virtual world. This is because it is possible to code a virtual

world's legal system to represent any of the features of the real world legal system, or an amalgam of them.

It is shown in chapter six that the principle of *numerus clausus*, together with the requirement in the law of things that a thing must be a corporeal to be the object of a real right, are the main stumbling blocks for the recognition of virtual property in South African law. However, the questions that relate to the legal nature of assets in virtual worlds tend to mirror the questions that arise in connection with intangible rights in the real world. Although these questions lead to understandable confusion about the classification of these rights as being ontractual or property-like, some of the problems have been solved in real-world law. To clear up the confusion, it is proposed that the principle of *numerus clausus* should apply to virtual property so that courts that have to deal with disputes relating to virtual property could have fixed property types or categories to which they can resort.

With regard to the principle of absoluteness, it is shown in chapter six that (as in the real world) both players and developers want to protect their virtual property interests by means of having real rights rather than personal rights in their virtual objects. This is because the property remedies will be much stronger than the remedies that will be available in the case of weak personal rights. The distinction between ownership, limited real rights and personal rights also exists in virtual worlds. However, the principle of absoluteness is sometimes coded into the system and players can enforce property rights against other players with regard to their virtual property regardless of whether those rights are recognised specifically as property rights.

The principle of publicity applies similarly in the real and virtual worlds. In the virtual world (as in the real world), ownership of a movable is usually publicised by possession and in the case of an immovable, ownership is often determinable by requesting the information from the virtual world interface (similarly to information obtainable from a deeds registry in the real world). However, unlike the real world, one can often just select or click on a virtual immovable to see pertinent information about the object that would only be available from a cumbersome deeds registry search in the real world. This makes the virtual world application of the publicity principle more efficient than its application in the real world. As appears from other aspects of the analysis discussed below, the role and force of possession is stronger in the virtual world than in the real world, mostly because of the effect of code.

Regarding the principle of specificity, unlike the real world, where exceptions to the rule may occur, transfer of virtual objects will always happen on an individual item basis in virtual worlds, since this feature is inherent in the binary storage system of a virtual world. The virtual world database is not just a registry of items or objects, but part of the very core of the computer code as programming language. Even though these principles differ slightly in the real and virtual worlds, both publicity and specificity are still system necessities in virtual worlds.

With regard to the principle of transferability, it is shown in chapter six that most virtual world objects are transferable in the same way as their real world counterparts. However, certain items with an exceptionally high player value (such as armour and swords) cannot be traded and are considered to be “bound” to a player once he or she has taken possession of the item, which becomes untradeable

(and in effect a *res extra commercium*). In this case, the only way to trade the “bound” item will be to trade the avatar to which it is connected.

With regard to the principle of abstraction, any cross-barrier transaction dealing with virtual property items is governed by the real-world legal system that has jurisdiction in normal property disputes. However, since most virtual worlds default to the position where possession equals ownership (at least to some extent), it follows that the game code enforces an abstract system and the game code does not take any cognisance of any other personal or social exchanges that might have preceded the method of transfer.

The exceptions mentioned above do not negate the general conclusion that the property principles of *numerus clausus*, absoluteness, publicity, specificity, transferability and abstraction feature in both the real world and virtual worlds. However, as appears from the discussion, the application of these principles sometimes differs in virtual worlds because of the differences between the real world and the virtual world. This conclusion applies particularly when the effect of a particular principle is affected by the role of code in the construction and functioning of the virtual world.

From the conclusions set out above, it follows that there are no insurmountable obstacles to real world recognition of virtual property, both in the form of property objects and property rights. Since it has already been concluded that it is worthwhile and justified, at least in some instances, to recognise and protect virtual property as property in the real world, this conclusion is significant. The only remaining question is what this conclusion means for the nature of the virtual-world property rights that

are recognised in the real world. In other words, if we assume that it is sometimes necessary and justified, and also possible, to recognise and protect virtual property interests as property in the real world, what does that imply for the nature of the recognised property rights?

This raises the issue of whether recognition and protection of virtual property requires that the relevant interests should be classified as real rights. The question of whether virtual property rights are contractual or real rights remains an open one without any definitive answers, at least initially. However, certain tools can help determine on an *ad hoc* basis whether a virtual property right is capable of being accepted as a new type of real right. For instance, if a virtual property right fulfils the requirements of the classical model of property law, that right can be recognised as a property right. The same goes for the *numerus clausus* test. If a virtual property right is included in the *numerus clausus* it can be classified as a real right rather than a personal right.

If it is assumed that virtual property can be recognised and protected as real rights, the next question is whether those real rights should adopt the form of ownership, limited real rights or possession. It is shown in chapter six that even though possession is often equal to ownership in virtual worlds, many virtual worlds make provision for a more nuanced approach to ownership that tends to mimic real world ownership.

There are public law as well as private law remedies available for the protection of virtual property interests in the form of ownership. There is a distinction between ownership and limited real rights in most virtual worlds, but the occurrence of limited

real rights in virtual worlds is still the exception rather than the rule. In most virtual worlds, ownership can be said to result from the possession of a virtual object. To illustrate how property rights work inside a virtual world, methods of acquisition of virtual property are analysed in chapter six, indicating that the virtual world methods of acquisition mimic those in the real world, at least in some respects. It became clear that with regard to the original acquisition of virtual property, *occupatio* of a *res nullius* is the main method of acquisition. In terms of derivative acquisition, the real world situation is followed where movables are acquired through transfer of ownership by means of delivery and immovables by means of registration. However, due to the nature and restrictions of the code-based property system, transfer often resembles abandonment followed by subsequent original acquisition by the party buying a virtual object.

From the discussion above it is clear that inside a virtual world, property rights are treated and function very similar to their real world counterparts, aside from some idiosyncrasies relating to the code-based nature of virtual worlds. However, when it comes to the question about virtual property rights being recognised in the real world as real rights, it is necessary to bear in mind that from a real world perspective the virtual property rights are still mostly based on contract and are therefore weak by comparison with their real-world counterparts. This once again highlights the *ad hoc* need for real-world recognition of virtual property rights as real rights where weak personal rights cannot provide adequate protection.

If we assume that it is sometimes necessary and justified to recognise and protect virtual property in the real world (as was argued in chapter four) and that it is

possible to do so, in the form of either ownership or limited real rights (as was argued in chapters four, five and six), the remaining question is what the remedies for protection of these rights should be. This question is addressed in the last part of this chapter below.

7 2 Remedies for protection of virtual property

7 2 1 Introduction

This section provides an overview of the remedies and protection mechanisms that are available to parties who interact with, own or possess virtual property. In the preceding chapters, as well as the conclusion above, it has become clear that even though virtual property should sometimes be protected, there is still uncertainty about when to protect virtual property and which remedies might be available. The question of when to protect virtual property interests with real-world remedies is discussed below and some general rules and suggestions are provided as tools for dealing with this difficult subject.

The question of available remedies and protection of virtual property in the real world will always be preceded by the question of whether virtual property should be protected, both generally and in a specific case. This problem was illustrated in the discussion about the problems concerning the effects of recognition of, and the

pitfalls relating to virtual property in chapter 4.¹ To recap, the problems relating to the recognition of virtual property stem from two arguments.² The first argument states that the phenomenon of virtual property is just a side effect of the function of the virtual world as a form of entertainment and, because of that, it should not be protected. The second argument states that because of economic,³ social⁴ and normative⁵ arguments, players should be able to acquire virtual property rights that are recognised and protected in the real world. From the discussion above and the

¹ See the discussion about the pitfalls in chapter 4 above at 4.6. See also Erlank W "Acquisition of Ownership inside Virtual Worlds" 2012 SSRN (forthcoming (2012) 75 *THRHR*) 1-24 at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2019110 (30 Mar 2012) 1-24 at 5, fn17; Bartle RA *Pitfalls of Virtual Property* (2004) *The Themis Group* 1-23; Castronova E "Virtual Worlds: a First-Hand Account of Market and Society on the Cyberian Frontier" (2001) *No 618 CESifo Working Paper* at <http://papers.ssrn.com/abstract=294828> (20 May 2009). Also see Lawrence DE "It Really is just a Game: the Impracticability of Common Law Property Rights in Virtual Property" (2008) 47 *Washburn LJ* 505-549; Nelson JW "The Virtual Property Problem" 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33.

² See in general: Nelson JW "The Virtual Property Problem" 2009 SSRN at <http://ssrn.com/abstract=1469299> (11 Aug 2009) 1-33 at 1; Bartle RA *Pitfalls of Virtual Property* (2004) *The Themis Group* 1-23. See also the discussion in chapter 4 above.

³ See chapter 4 above at 4.2. See in general Castronova E "Virtual Worlds: A First-hand Account of Market and Society on the Cyberian Frontier" 2001 *No 618 CESifo Working Paper* 1-40.

⁴ See chapter 4 above at 4.3. See in general Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184; Yee N "The Virtual Skinner Box" at <http://www.nickyee.com/eqt/skinner.html> (16 May 2009); See also Yee's analysis of both quantitative and qualitative statistical data from *Everquest* where he also includes interviews with players regarding their levels of addiction to the virtual world: Yee N "The Norrathian Scrolls: A Study of EverQuest" 2001 at <http://www.nickyee.com/eqt/report.html> (16 Dec 2011) 1-76.

⁵ See chapter 4 above at 4.4 where the normative justifications of Locke's labour theory, Bentham and Mill's utilitarian and Radin's personhood theories are discussed and applied to virtual property. See in general Lastowka FG & Hunter D "The Laws of the Virtual Worlds" (2004) 92 *CLR* 1-74 at 43.

debate dealing with these arguments, one might get the idea that these two arguments can never both be accepted. However, in the next section I propose some rules and suggestions about how to resolve this apparent standoff. Due to the very valid arguments against the recognition of virtual property,⁶ I propose that virtual property should not be recognised in all circumstances, but only in certain instances, as discussed below.

Firstly, it has to be reiterated that real-world protection of virtual property interests is not available, and arguably should not be available, in at least two instances. The first of these is the cases mentioned in the previous paragraph, where real-world legal protection would unnecessarily and unjustifiably interfere with the gaming aspect of the virtual world and the property interests acquired in it. The second is the cases where real-world protection is unnecessary because the required and desired protection of virtual world interests is already adequately provided for through the inherent features of the virtual world, for example when the code provides sufficient protection by making theft or other forms of unwanted interference impossible.

Apart from these instances, there are three categories of real-world remedies that may or should be available to owners or possessors of virtual property.⁷ The first

⁶ The arguments relating to the meaning or definition of virtual property; responsibility (of developers to players); the game conceit (suspension of disbelief); player resentment and intellectual property). See the discussion in chapter 4 above at 4.6.

⁷ Of these three I will only discuss the third category in detail, since the other two categories have either been dealt with earlier in this dissertation (public law at 3.5) or do not need to be explored further (constitutional protection at 5.2.2) in this dissertation.

category provides for the protection of virtual property via public law criminal sanctions, for example against theft. This method of protecting virtual property interests has already been employed in the real world, as is illustrated by the discussion of court cases in chapter three above.⁸ However, this protection of property is achieved by the relatively primitive strategy of using criminal law sanctions and as such can only solve some problems (like interferences that fall under the technical definition of theft) and not much more. This would suggest that there is a lack of development in this area, which provides one of the reasons to strengthen protection of virtual property by means of property rules.

The second category provides for the constitutional protection of virtual property interests against (primarily state) interference. In the civil law systems, property is defined much wider under constitutional law than under private law. Because of this wider definition, one can conclude that it is possible to protect virtual property in constitutional law even if it is not recognised in private law. One can also conclude

⁸ See the discussion in chapter 3 above at 3.5. This method of protecting virtual property interests have already been established in the real world by courts that have found that they are willing and able to recognise and protect virtual property via public law for the purpose of protection against amongst others, theft. For a discussion of a recent Dutch case that is the first such case decided in a Western legal system see: Erlank W “The Legal Acceptance of Virtual property?” 2010 at <http://ssrn.com/abstract=1591384> (30 Mar 2012) 1-6. Also see the discussion of a number of such cases throughout the world: Ma M “Online Games and Virtual Property” 2009 *Martindale-Hubbell* at http://lawyers.martindale.com/internet-law/article_Sheppard-Mullin-Richter-Hampton-LLP_689960.htm (05 Oct 2009); Fairfield JAT “Virtual Property” (2005) 85 *BUL Rev* 1047-1102 at 1088; Yoon U “Real Money Trading in MMORPG Items from a Legal and Policy Perspective” 2004 *SSRN* at <http://ssrn.com/abstract=1113327> (05 Nov 2009).

that it would be much easier to accept that virtual property will be included as private-law property in the Anglo-American legal systems, but it may be harder (but not impossible) to achieve the same recognition in Roman-Germanic systems. From the brief discussion of the fact that certain intangible things are in general protectable as objects of constitutional property rights, it may be assumed that virtual property could qualify as an object of constitutional property.⁹

The third category provides for the protection of virtual property by means of private law remedies. This is the most interesting category for present purposes and in the following section, some guidelines are provided for how and when virtual property can be protected by private law means.

7 2 2 Private law remedies and protection

7 2 2 1 Introduction

Private law provides three main categories of remedies or relief for the holder of a virtual property interest. If there is a dispute about virtual property, or if any right in

⁹ It is possible that in cases where private law does not provide protection for virtual property, it could still be protected by constitutional law for specific constitutional reasons. In addition, if private law should provide protection for virtual property, it is highly likely that constitutional protection will automatically follow. Also see the discussion in chapter 5 above at 5.2.2. This is in itself the topic of a separate study and is not addressed in detail in this dissertation. It is also possible that virtual property could qualify for horizontal constitutional protection, but I will leave that argument for the time being, especially since the horizontal application of constitutional rights remains a contentious issue. See in general Van der Walt AJ *Constitutional Property Law* (3rd ed 2011) 150.

virtual property has been infringed, one can approach the matter in the following ways. Firstly, there are contractual remedies, such as those provided for in the EULA or TOS. Secondly, there are property remedies that specifically deal with the protection of ownership, limited real rights and possession. Thirdly, one can make use of the normal delictual or enrichment remedies that would be available with regard to real world property to recover delictual loss or loss caused by unjust enrichment.¹⁰ In the following section, I will briefly deal with the contractual remedies by means of an example from the EULA of *WoW*. Then I will discuss the application of real world property remedies to virtual property. I will not discuss delictual or enrichment remedies because this dissertation is focused exclusively on property issues.¹¹

7 2 2 2 Contractual remedies

The most obvious remedy with which to protect the interests of players or participants in virtual worlds are contractual in nature because of the fact that the relationship between the player or participant and the developers is established by contract. However, these contractual remedies are limited and may often be

¹⁰ Contractual and delictual remedies are so-called liability rules, while real property remedies grant property rules, i e enforcing the property right instead of compensation. However, even in real world property law some property rules are being replaced by liability rules: expropriation, nuisance and encroachment, amongst others.

¹¹ Delictual and enrichment remedies are not addressed here due to time and space constraints. They could form the topic of a separate study.

insufficient to protect the property or property-like interests of players and participants. It was established in chapter 3 that the contracts on which this relationship is founded usually weight the scales in favour of the developers, while limiting the rights of players and participants. Secondly, as was indicated in chapter 4, personal rights based on contract are sometimes inadequate to protect property-like interests because of the inherent limitations and shortcomings of personal rights and the remedies associated with them. As far as property interests are concerned, the most relevant shortcoming is that personal rights do not bind (or benefit) successors in title. At least in certain cases, especially where players or participants have invested heavily in the creation or acquisition of virtual property, they might therefore want stronger rights with stronger remedies.

The situation is even worse than appears from the overview above because of the way in which the standard contract forces players and participants to agree to Alternative Dispute Resolution. An extract from the EULA of *WOW* provides a useful example of the way in which EULAs and TOSs are structured to regulate contractual remedies arising from those contracts.¹² The *WoW* EULA makes use of standard alternative dispute resolution (ADR) methods to resolve any issue as cheaply and

¹² The same issues are regulated in *Second Life* by the TOS and are dealt with in a similar manner as those found in the *WoW* EULA. See 12. Dispute Resolution and Arbitration: Linden Lab "Terms of Service - Second Life" 2010 *Second Life* at <http://secondlife.com/corporate/tos.php> (02 May 2011).

conveniently as possible.¹³ To briefly summarise the procedure: the EULA states that a party with a grievance should first resort to informal negotiations to “expedite resolution and control the cost of any dispute, controversy or claim related to this License Agreement.”¹⁴ If that does not help, then after 30 days, the parties are bound to make use of binding arbitration. The only exception to this is if “(e)xcept as otherwise provided in this License Agreement, you and Blizzard may litigate in court to compel arbitration, stay proceedings pending arbitration, or to confirm, modify, vacate or enter judgment on the award entered by the arbitrator.”¹⁵

The EULA includes a few exceptions to the mandatory informal negotiations and arbitration. These relate to disputes “seeking to enforce or protect, or concerning the validity of, any of your or Blizzard's intellectual property rights ... any Dispute related to, or arising from, allegations of theft, piracy, invasion of privacy or unauthorized use; and ... any claim for injunctive relief.”¹⁶

Arbitration will take place in the USA, at any reasonable location for the player. However, if the player is located outside of the USA, arbitration shall be initiated in

¹³ See in general Erlank W “Enforcement of Multi-Tiered Dispute Resolution Clauses” 2002 *SSRN* at <http://ssrn.com/abstract=1491027> (01 Dec 2009).

¹⁴ See 15.A. Informal Negotiations: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹⁵ See 15.B. Binding Arbitration: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹⁶ See 15.D. Exceptions to Informal Negotiations and Arbitration: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

Los Angeles. Players also agree to submit to the jurisdiction of a “court of competent jurisdiction within the County of Los Angeles, State of California, United States of America.”¹⁷

The governing law is stipulated in the EULA to be “the Laws of the United States of America and the law of the State of Delaware, without regard to choice of law principles.” It is also interesting to note that “(t)he application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded.”¹⁸

Finally, this clause (section 15) is designed to be severable from the rest of the EULA if it or any portion of it is found to be illegal or unenforceable. If that is the case, and arbitration cannot happen, the EULA stipulates that “such Dispute shall be decided by a court of competent jurisdiction within the County of Los Angeles, State of California, United States of America, and you and Blizzard agree to submit to the personal jurisdiction of that court.”¹⁹

The considerations above indicate that contract-based remedies will often not provide sufficient or suitable protection for the interests that players or participants may acquire in virtual property. The crucial question arising from that preliminary

¹⁷ See 15.E. Location: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹⁸ See 15.F. Governing Law: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

¹⁹ See 15.G. Severability: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

conclusion is whether property remedies may be available in certain instances and whether it may be possible to provide such remedies.

7 2 2 3 Property remedies

As was mentioned above,²⁰ the remedies available to a holder of a property right in real-world legal systems are usually absolute or comprehensive in the sense that they are enforceable against everyone, which is one of the reasons why property rights are considered more valuable than personal rights. Even mere possessors can use possessory remedies that are available against every person who interferes with their possession unlawfully. In private law, an owner or possessor of an object of a property right can use the *mandament van spolie*; while the owner can use the *rei vindicatio* to reclaim her property if she lost possession of it,²¹ or use the *actio negatoria* to fend off certain claims to the use of the property by third parties.²² In the case of damage to the property, she can institute a delictual claim.²³

Given the shortcomings of contractual remedies that were pointed out in the previous section, it therefore seems natural to argue that proper protection of virtual property interests requires, at least in some instances, that those interests should be recognised as real rights, so that their holders can claim the protection of real

²⁰ See the discussion about property as rights above at 6.3.

²¹ Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 170.

²² Van der Merwe CG & De Waal MJ *The Law of Things and Servitudes* (1993) 173.

²³ Van der Merwe CG *Sakereg* (2nd ed 1989) 12.

property remedies. However, this conclusion does not hold generally, since there are instances where virtual property requires neither recognition as real rights nor the protection of property remedies.

Firstly, even though the *rei vindicatio* and *actio negatoria* are not provided in that specific form to players as remedies to defend their property rights (inside a virtual world), other mechanisms are available that have either the same or an even stronger protective effect.²⁴ In some instances, code simply makes it impossible to infringe on a virtual property interest, making property protection unnecessary to begin with. Sometimes the virtual world's programming could make provision for the automatic return of a player's property if it is found in the hands of another player, but usually actual interference with a player's property will either be physically impossible or, if an interference does occur, a player can simply approach the developers and argue her case for the return of her property.²⁵ These code-proscribed effects of the virtual world provide adequate and suitable protection for

²⁴ See the discussion about rules, regulation and law in virtual world in chapter 3 above at 3.2 (code as law), 3.3 (user-created law).

²⁵ Such as making use of the appeal system that is provided to raise issues with the developer. The appeal system has four broad categories. These are for advice, bug reports, violation reports and appeals (for help). See: Bioware "Dark Age of Camelot Beginner's Guide: Getting Help – Customer Service" 2010 www.camelotherald.com at <http://www.camelotherald.com/article.php?id=149> (10 Oct 2010). For a discussion of how code is used in the governance functions of virtual worlds see Fairfield JAT "Virtual Property" (2005) 85 *BUL Rev* 1047-1102 at 1049; Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 150; and for a general discussion of how code-as-law functions see: Lessig L *Code and other Laws of Cyberspace* (1999) as well as Lessig L *Code Version 2.0* (2006).

virtual property interests in at least some instances, even though the interests are neither recognised as real rights nor protected by property remedies. Arguably, if virtual property was accepted as a real-world category of real rights, a player could use the real-world property remedies to protect her interests if any of the other protective solutions mentioned here does not suit the purpose.²⁶ The question therefore remains whether it is necessary and possible, in the instances not covered by the protective measures mentioned before, to recognise virtual property as real rights and protect it with property remedies.

7 2 3 General rules

7 2 3 1 Introduction

The question of whether or not to protect virtual property interests with real-world property remedies will always depend on an *ad hoc* analysis of the facts. Some general rules and suggestions are proposed for making this decision. The following factors should always be taken into consideration when making a decision about the real world recognition of virtual property rights. Firstly, it should be determined who the defendant is. Is it the developer, a player or a third party? Secondly, it should be determined whether the virtual world where the virtual property is located is operated

²⁶ As is already the case with the real world protection provided via public criminal law protection. See the discussion above in chapter 3 at 3.5. See chapter 3 in general for a discussion of how players' property interests could be infringed upon, both inside and outside of the virtual world.

as a commercial enterprise. Thirdly, it should be determined whether there are any cross-border (or cross-barrier) effects caused by the virtual property. In the fourth place, one should look at the question of whether the facts of the case are influenced by the suspension of disbelief. In other words, is the claim based on an infringement that is part of the game or not? Finally, the question of value should be addressed.

7 2 3 2 General rules

In order to address these questions, the following general rules are proposed. Firstly, if the cause of action is a normal part of the game, it should be unjusticiable in the real world. In other words, if the action does not occur outside of the so-called magic circle of the game-play²⁷ and it is allowed by the game code,²⁸ it should not result in the protection of virtual property in the real world. As an example, one can consider the virtual world of *Ultima Online*. One of the features of *Ultima Online* is that players are enabled by the software and game design, as part of the game, to steal from one

²⁷ See the discussion about the magic circle, game-play and the suspension of disbelief in chapter 4 above at 4.6.4 as well as Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 13.

²⁸ See the discussion about code-as law in chapter 3 above at 3.2. See also Jankowich AE "Property and Democracy in Virtual Worlds" (2005) 11 *BUJ Sci & Tech L* 173-220 at 177; Pollitzer B "Serious Business: When Virtual Items Gain Real World Value" 2007 *SSRN* at <http://ssrn.com/abstract=1090048> (10 Oct 2009) 1-51 at 20; Lessig L *Code Version 2.0* (2006) and Lessig L *Code and other Laws of Cyberspace* (1999).

another.²⁹ In this case, it would be farcical to give someone real-world protection for theft of their virtual property if it was stolen in the normal course of the game. One should remember that if the game code does not allow theft in the virtual world, then it could not occur as a part of the normal game play. However, if the virtual property were stolen outside the normal rules of the game,³⁰ the cause of action will have a cross-barrier effect and then it should arguably be justiciable in the real world.³¹

The second general rule relates to the question of whether a virtual world is run as a commercial enterprise. If a virtual world is run as a commercial enterprise, the

²⁹ Grimmelmann JTL "Virtual Worlds as Comparative Law" (2004) 49 *NYL Sch L Rev* 147-184 at 150 fn 11. Certain virtual worlds even include the class of "thief" as one of the types of avatar that a player can choose to create.

³⁰ For some examples of how it is possible to steal virtual property in the real world see: Arias AV "Life, Liberty and the Pursuit of Swords and Armor: Regulating the Theft of Virtual Goods" 2007 *Emory LJ* forthcoming at <http://ssrn.com/abstract=1012886> (10 May 2010) 1-70 at 5-7; BBC News "Virtual Theft Leads to Arrest" 2007 *BBC News* at <http://news.bbc.co.uk/1/hi/7094764.stm> (12 February 2010); King J "Gamer Steals from Virtual World to Pay Real Debts" 2009 *Reuters* at <http://www.reuters.com/articlePrint?articleId=USTRE5613SL20090702> (17 June 2009); Sophos "Habbo Hotel Sounds Alarm on Real Theft of Virtual Furniture" 2007 *Sophos* at <http://www.sophos.com/pressoffice/news/articles/2007/11/habbo-hotel.html> (12 February 2010).

³¹ In terms of virtual worlds and virtual property, "cross barrier" refers to the conceptual barrier between the real world and the virtual world in question. In other words, this is a cross barrier effect, action or transaction that originates in one world and has an effect in the other. For example, if one player forced another player in the real world to transfer all his or her virtual property to the other player's avatar in the virtual world, there would be a cross-barrier effect. The threat of, or actual, violence that occurs in the real world results in a direct change of a player's virtual world patrimony. For an example see the discussion of the Dutch-*Runescape* case in chapter 3 above at 3.5.4. See also Erlank W "Acquisition of Ownership inside Virtual Worlds" 2012 *SSRN* (forthcoming (2012) 75 *THRHR*) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2019110 (30 Mar 2012) 1-24 at 12-13.

EULA or TOS should for normative and policy reasons not be regarded as definitively suspending or negating property rights in virtual world items merely because it says so.³² In this case, the first rule concerning the question of the disputed action being part of the game still applies. Following on from that question is the question of value.³³ If one were to accept that virtual property rights should be protected in certain cases, it is proposed that any actions taken by a developer of a commercially-run virtual world should be scrutinised for unfair infringement of virtual property rights. If a developer takes action that is not *bona fide*, in the best interest of the virtual world or taken for legitimate governance purposes, the action should be viewed with suspicion.³⁴ In such cases, players should be able to claim that their virtual property rights be recognised and protected as property in the real world. Once again, it would result in an untenable situation if a developer could not infringe on the virtual property rights of players when it is necessary for the general good of the virtual world.³⁵ However, clauses in EULAs and TOSs such as those allowing developers to deprive players of their virtual property for “any or no reason”³⁶ should

³² See the discussion about the normative theories in chapter 4 above at 4.4.

³³ See the discussion of value as part of the normative theories in chapter 4 above at 4.4 as well as one of the main reasons for being protected via public criminal law means in chapter 3 above at 3.5.5.

³⁴ See the discussion in chapter 4 above at 4.5 and 4.6 about the need to govern a virtual world without having to take into account virtual property rights.

³⁵ See the discussion in chapter 4 above at 4.6.3. See also Bartle RA *Pitfalls of Virtual Property* (2004) 1-23 at 9-10.

³⁶ See in general: Blizzard “World of Warcraft - End User License Agreement” 2009 *World of Warcraft* at <http://www.worldofwarcraft.com/legal/eula.html> (04 Nov 2009).

not be accepted by real-world courts as legally enforceable. Actions taken by a developer of a commercially run virtual world should always be seen as suspect when the developer stands to benefit unfairly from the action. This is especially the case if the action could affect the virtual world patrimony of the players.

It should be taken into account that virtual worlds that are run as commercial enterprises more often than not profit quite extensively from the provision, sale and trade of virtual objects. Consequently, the developers of commercially run virtual worlds create a market for consumption of virtual property. Due to this fact, in addition to the normative justifications provided by the utility, personality and labour theory, provisions in a EULA that state that virtual objects have no value or that players acquire no property rights should be ignored. The fact that the developer is benefitting financially from the provision, maintenance and exploitation of a virtual market indicates that the virtual objects do indeed have real-world value and should be protectable in certain instances. This means that a provider of virtual real estate such as the developer of *Second Life* should be held accountable for the real-world consequences of the provision of a market in virtual real estate and services in exactly the same way as a real-world producer of goods would be held accountable. At the very least, consumer protection legislation should in these cases apply to the provision of virtual property by virtual-world developers.

The third rule states that any developer who creates a commercially-run virtual world that had economic interaction with the markets in the real world should only be

allowed to terminate a virtual world or end the provision of access to such a virtual world for very good financial reasons (such as insolvency or pending insolvency).³⁷

In such a case, and even if the developers just wish to move on to some new project, there should be special legislation forcing developers to consider and accept reasonable offers from the players to take over the operation of the virtual world. The reason for this once again originates in the normative justifications for protecting virtual property, bearing in mind the social and economic effects caused by the operation of and participation in virtual worlds.

The fourth rule relates to virtual worlds that are not run for commercial purposes or profit. Almost all the justifications for holding a commercially-run virtual world developer responsible for the loss of a player's virtual property are absent in a non-commercial virtual world. Therefore, to facilitate innovation, protect the nature of gaming and not to over-regulate the operation of virtual worlds, the developers of non-commercial virtual worlds should have no real-world obligations or liabilities with regard to virtual property.³⁸ This would not affect the status of virtual property if a third party infringes on a player's virtual property rights and the infringement has a cross-barrier element to it. In other words, this only removes the developer of the virtual world from the equation of virtual property protection. If someone hacks into a

³⁷ See the discussion about the termination of the virtual world *The Sims Online* (TSO) in chapter 2 above. See also Terdiman D "EA Land' Closing just Weeks after Debut" 2008 *CNET.com* at http://news.cnet.com /8301-17938_105-9931757-1.html (18 May 2009).

³⁸ See the discussion above about the needs of developers to be able to manage their virtual worlds for the benefit of all the players at 4.5 and 4.6.

player's account and steal all their virtual assets in the non-commercial virtual world, the player will still have recourse to criminal as well as property protection against the thief, just not against the developer.

The fifth rule is proposed with regard to the plans by governments to tax earnings originating in virtual worlds.³⁹ As a general rule, virtual property should be taxable and income originating from inside virtual worlds should be regarded as part of a person's normal taxable income. However, I do not think it would be fair or promote the participation in virtual worlds for social or entertainment purposes if someone is taxed on the possible or virtual market value of their virtual world patrimony. Only when someone converts his or her virtual property to real world income should it be taxable. The practical side of enforcing this rule is one that could prove to be difficult and will have to remain the topic for another study.

It will be extremely difficult for governments to know when one person sells his or her virtual property to another person. This is especially true of the occasions where virtual property is traded outside of the virtual world.⁴⁰ This uncertainty will not be

³⁹ See the discussion about taxation of virtual property in chapter 4 above at 4.2.5. See also Lederman L "Stranger than Fiction': Taxing Virtual Worlds" (2007) 82 *NYU LR* 1620-1672 esp 1670-1672; Terdiman D "IRS Taxation of Game Assets Inevitable" 2006 *Gamespot* at http://www.gamespot.com/pc/rpg/there/news.html?sid=6162654&om_act=convert&om_clk=newsfeatures&tag=newsfeatures;title;1 (20 May 2009); Pienaar SJ *South African Income Tax Implications of Income Earned in Virtual Worlds* (2008) iii.

⁴⁰ See the discussion about the economy of virtual worlds above in chapter 4 at 4.2. This practice is referred to as real money trade (RMT). See in general Yoon U "Real Money Trading in MMORPG

easily resolved but could be addressed in legislation stating that the ownership of each virtual property account (and by default virtual patrimony) should be registered and verifiable.⁴¹ Income from virtual worlds should be taxable at a player's normal income tax rate, but a player should also be able to deduct reasonable expenses from the income. These should include, but not be limited to, monthly account subscription fees, virtual rent, maintenance and internet access fees. For the normal player who uses his or her participation in a virtual world for leisure or entertainment purposes, this will probably always result in a loss when balancing the virtual patrimony accounts. This will ensure that only players who commercially benefit from participation in virtual worlds should be affected by the taxation of virtual property.

7 2 4 Conclusion

In this section, I discussed the available remedies and ways of protection of virtual property. This discussion centred around the recommendation that virtual property should not be protected in all instances and that the protection of virtual property

Items from a Legal and Policy Perspective" 2004 *SSRN* at <http://ssrn.com/abstract=1113327> (05 Nov 2009) 1-59.

⁴¹ Certain virtual worlds have started playing around with the idea that each virtual world account will have to be registered to an identifiable real world person. However, this has not been well received by players, and the plans have not been implemented yet. See Perez JG "Google+ Introduces Identity-Verification Badges" 2011 *IDG News* at http://www.pcworld.com/article/238540/google_introduces_identityverification_badges.html (30 March 2012); Dancu J "Reason 400 Million and 1 for Identity Verification in Social Networks" 2010 *Idiology INC Identity Matters* at <http://www.idology.com/blog?p=285> (30 Mar 2012).

should always be determined on an *ad hoc* analysis of the facts. In order to facilitate this, I proposed some general rules about how to decide whether an object of a virtual property right should be protected in the real world. The first rule states that if the cause of action is a normal part of the game, it should be unjusticiable in the real world. If the game-code does not allow theft in the virtual world, then it cannot occur as a part of the normal game-play. The second rule states that if a virtual world is run as a commercial enterprise, the EULA or TOS should for normative and policy reasons not be regarded as definitively suspending or negating property rights in virtual world items. If a developer takes action that is not *bona fide*, in the best interest of the virtual world or taken for legitimate governance purposes, players should be able to claim that their virtual property rights be accepted in the real world. The third rule states that any developer who creates a commercially run virtual world that had economic interaction with the markets in the real world should only be allowed to terminate a virtual world or end the provision of access to such a virtual world for very good financial reasons (such as insolvency or pending insolvency). The fourth rule states that to facilitate innovation, protect the nature of gaming and not to over-regulate the operation of virtual worlds, the developers of non-commercial virtual worlds should have no real world obligations or liabilities with regard to virtual property. The fifth rule states that (generally speaking), virtual property should be taxable and income originating from inside virtual worlds should be regarded as part of a person's normal taxable income.

To summarise, this dissertation recommends that virtual property should not be protected by real-world law in all instances and that the protection of virtual property

should always be determined on an *ad hoc* analysis of the facts. To help with the *ad hoc* decision whether a virtual property right should be protected in the real world, the general principles that are recommended take note of the protection that derives from the nature of gaming as such, the interests of participants in virtual worlds and the limitations of real-world law to recognise and protect virtual property interests.

Bibliography

Abbreviations

<i>Akron Intell Prop J</i>	<i>Akron Intellectual Property Journal</i>
<i>Ann Surv Int'l & Comp L</i>	<i>Annual Survey of International and Comparative Law</i>
<i>Berkeley Tech LJ</i>	<i>Berkeley Technology Law Journal</i>
<i>BUJ Sci & Tech L</i>	<i>Boston University Journal of Science & Technology Law</i>
<i>BUL Rev</i>	<i>Boston University Law Review</i>
<i>Cardozo Arts & Ent.L.J.</i>	<i>Cardozo Arts & Entertainment Law Journal</i>
<i>Cardozo J of Int & Comp Law</i>	<i>Cardozo Journal of International & Comparative Law</i>
<i>Chi-Kent L Rev</i>	<i>Chicago Kent Law Review</i>
<i>CILJSA</i>	<i>Comparative and International Law Journal of Southern Africa</i>
<i>CJLJ</i>	<i>The Canadian Journal of Law & Jurisprudence</i>
<i>CJLS</i>	<i>Canadian Journal of Law & Society</i>
<i>CLJ</i>	<i>Cambridge Law Journal</i>
<i>CLR</i>	<i>California Law Review</i>
<i>CLSR</i>	<i>The Computer Law and Security Review</i>
<i>Col J Asian L</i>	<i>Columbia Journal of Asian Law</i>
<i>Col LR</i>	<i>Columbia Law Review</i>
<i>Emory LJ</i>	<i>Emory Law Journal</i>
<i>Eur J Law Econ</i>	<i>European Journal of Law and Economics</i>
<i>Harv LR</i>	<i>Harvard Law Review</i>
<i>Harvard Bus Rev</i>	<i>Harvard Business Review</i>

<i>Hastings Comm & Ent LJ</i>	<i>Hastings Communications and Entertainment Law Journal</i>
<i>Hastings LJ</i>	<i>Hastings Law Journal</i>
<i>J Afr Law</i>	<i>Journal of African Law</i>
<i>J Marshall Rev Intell Prop L</i>	<i>The John Marshall Review of Intellectual Property Law</i>
<i>JCMC</i>	<i>Journal of Computer Mediated Communication</i>
<i>JICLT</i>	<i>Journal of International Commercial Law and Technology</i>
<i>JIPLP</i>	<i>Journal of Intellectual Property Law and Practice</i>
<i>JLS</i>	<i>The Journal of Legal Studies</i>
<i>JMH</i>	<i>Journal of Management History</i>
<i>JTIP</i>	<i>Tulane Journal of Technology and Intellectual Property</i>
<i>Kan L Rev</i>	<i>University of Kansas Law Review</i>
<i>Law & Contemp Prob</i>	<i>Law and Contemporary Problems</i>
<i>McGill LJ</i>	<i>McGill Law Journal</i>
<i>Mexican LR</i>	<i>Mexican Law Review</i>
<i>Michigan State LR</i>	<i>Michigan State Law Review</i>
<i>Minn L Rev</i>	<i>Minnesota Law Review</i>
<i>Miss LJ</i>	<i>Mississippi Law Journal</i>
<i>MIT</i>	<i>Massachusetts Institute of Technology</i>
<i>Nebr Law Rev</i>	<i>Nebraska Law Review</i>
<i>Notre Dame L Rev</i>	<i>Notre Dame Law Review</i>
<i>NW J Tech & Intell Prop</i>	<i>North Western Journal of Technology and Intellectual Property</i>
<i>NYL Sch L Rev</i>	<i>New York Law School Law Review</i>
<i>NYU LR</i>	<i>New York University Law Review</i>

<i>Or L Rev</i>	<i>Oregon Law Review</i>
<i>PELJ</i>	<i>Potchefstroom Electronic Law Journal</i>
<i>Phil Q</i>	<i>The Philosophical Quarterly</i>
<i>Pierce LR</i>	<i>Pierce Law Review</i>
<i>Rev Litig</i>	<i>The Review of Litigation</i>
<i>Rich JL & Tech</i>	<i>Richmond Journal of Law & Technology</i>
<i>SA Merc LJ</i>	<i>South African Mercantile Law Journal</i>
<i>SALJ</i>	<i>South African Law Journal</i>
<i>Santa Clara Computer & High Tech LJ</i>	<i>Santa Clara Computer & High Technology Law Journal</i>
<i>Sci</i>	<i>Science</i>
<i>Stan L Rev</i>	<i>Stanford Law Review</i>
<i>Texas LR</i>	<i>Texas Law Review</i>
<i>THRHR</i>	<i>Tydskrif vir Hedendaagse Romeins-Hollandse Reg</i>
<i>TSAR</i>	<i>Tydskrif vir Suid-Afrikaanse Reg</i>
<i>Tul L Rev</i>	<i>Tulane Law Review</i>
<i>U Chi L Rev</i>	<i>University of Chicago Law Review</i>
<i>U Chi L Sch Roundtable</i>	<i>University of Chicago Law School Roundtable</i>
<i>U Pitt L Rev</i>	<i>University of Pittsburgh Law Review</i>
<i>Va L Rev</i>	<i>Virginia Law Review</i>
<i>Washburn LJ</i>	<i>Washburn Law Journal</i>
<i>Yale LJ</i>	<i>Yale Law Journal</i>

Note on conventions: I have inserted the publication year as well as the date at which it was last accessed for all the material found on websites that are unrelated to printed material. If there is no date in the bibliography, it means that I was unable to ascertain a publication date for that item. With regard to the authorship of electronic resources on the internet it should be noted that many websites do not contain either the name of an author or a date of publication. While this is the case for most pages, in many instances I could get the details hidden in the source-code of the web-page.

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