

An exploration of South African news organisations'  
#FeesMustFall tweet-activity on the Twitter networked public  
sphere

by

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A thesis presented in partial fulfilment of the requirements  
for the degree of Masters in Art (Journalism)

at

**Stellenbosch University**

Department of Journalism

Faculty of Arts and Social Sciences

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December 2017

## **Declaration**

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A handwritten signature in black ink, appearing to read 'Adrian Baillie-Stewart', enclosed within a large, loopy circular flourish.

Adrian Baillie-Stewart

Date:

July 2017

## Acknowledgments

I give ultimate honour and abundant thanks to my Creator, the God of all creation: my only faithful, true and everlasting companion. O Saviour, You are my Rock and my Redeemer! I could not have done this without Your guiding Holy Spirit working in and through me.

*Do not be conformed to this world, but be transformed by the renewal of your mind, that by testing you may discern what is the will of God, what is good and acceptable and perfect (Romans 12:2).*

Professional engagement—Dr. Gabriël Botma: Thank you for your guidance and dedication towards helping me achieve the set of goals related to this academic study. Your involvement has been invaluable to me—particularly, thanks for teaching me so much about the research-writing process. Kyle Findlay: Thank you for your indispensable contribution during the early days when the topic for this study was a scant seedling-idea. Your role in mining the Twitter data-set was a pivotal contribution that has without doubt contributed to the eventual success of this study. Arthur Goldstuck and World Wide Worx: Thank you for granting me free academic-only access to the publication *SA Social Media Landscape 2017*. Thandi Smith, at Media Monitoring Africa: Thank you for helping me to verify ownership details of the Twitter accounts related to this study. Tableau® Academic: Through your student license programme, thank you for granting me unrestricted full professional-level access to the *Tableau® Desktop* software application.

Student-colleagues, friends and departmental staff—in a unique way, each of you contributed to my happiness, my sanity and my emotional growth. For this reason I remain deeply grateful and thankful to Nabila Hatimy, Ian and Leslie Hurst, Leonie Lord, Paul Harper, Elizabeth Newman, Lijuan Williams-Daniels, Dr. Simphiwe Sesanti and Prof. Lizette Rabe.

My family—My eldest daughter, Claire: Of all the people, you have been the most supportive, the most encouraging. A cherished confidant you continue to be to me. Had it not been for you, I would never have reached the end of this journey—thank you, my princess. My youngest daughter, Megan: You too have supported your daddy every step of the way—thank you, my angel.

Janine Baillie-Stewart: In you, Claire and Megan have been blessed with a wonderful mother. To my ever-caring and faithful sister, Delia: A thousand hugs go out to you, my sister-dearest—thanks for everything. And lastly, but by no means least, to Dean, Clinton and Marianne: I thank the Lord for your unconditional love, support and caring.

## Abstract

This study contributes towards the study of journalism in the age of social media and the role of the news organisation in the Twitter networked public sphere. The convergence of news media and social networks has resulted in the media industry being “challenged by a complex environment” (Villi, Matikainen & Khaldarova, 2016: 289). The primary focus of the study was to explore South African news organisations’ #FeesMustFall tweet-activity that took place on the Twitter networked public sphere for the period 15 to 23 October 2015. On 22 October 2015 the #FeesMustFall hashtag was trending on Twitter and featured prominently in news-media articles, stories and news reports. On 23 October 2015, President Zuma announced a zero fee increase for the 2016 academic year (Hosken, 2015). Relevant to the #FeesMustFall debate, this study endeavoured to determine how South African news organisations played their journalistic role (or not) on Twitter. This was facilitated by investigating South African news organisations’ use of the Twitter platform’s unique microblog features (e.g., direct messaging (DM), @mentions, and URL links) in their tweets. The theoretical paradigms of media functionalism, the information society and the networked public sphere were combined to establish a unique hybrid theoretical model that best-informs and best-supports the academic analysis of phenomena specific to this study. The study employed the use of a mixed-methods computer-assistive methodology, using the *Tableau*<sup>®</sup> software application in order to process South African news organisations’ tweets that featured the “#FeesMustFall” hashtag. The findings reveal some shortcomings and inconsistencies in news organisations’ quality of journalistic-type information that was published on Twitter. The study concludes with a discussion and a set of recommendations on three levels: the empirical, theoretical and methodological levels. The primary recommendation is that South African news organisations might wish to relook their current Twitter-content publishing strategy and refine their best practices for Twitter usage.

## Opsomming

Hierdie studie dra by tot 'n veld van ondersoek in die joernalistiek midde in 'n era van die gebruik van sosiale media, insluitend die rol van nuusorganisasies en die toenemende gebruik van Twitter in die openbare domein. Die konvergensie van nuusmedia en sosiale netwerke het tot gevolg dat die media-industrie toenemend uitgedaag word deur meer komplekse omgewings (sien Villi, Matikainen & Khaldarova, 2016: 289), en dus fokus die studie primêr op 'n ondersoek na Suid-Afrikaanse nuusorganisasies se #FeesMustFall Twitter aktiwiteite gedurende die tydperk van 15 tot 23 Oktober 2015. Op 22 Oktober 2015 was die #FeesMustFall handvat (hashtag) 'n gewilde onderwerp in media-artikels, mediaberigte en nuusverslaggewing en teen 23 Oktober 2015 kondig president Zuma aan dat daar geen verhoging in studentegelde sou wees vir die 2016 akademiese jaar nie (Hosken, 2015). Relevant tot die #FeesMustFall debat poog die studie om vas te stel hoe Suid-Afrikaanse nuusorganisasies 'n joernalistieke rol gespeel het (of nie gespeel het nie) via Twitter. Die ondersoek is voorts ondersteun deur 'n ondersoek na Suid-Afrikaanse nuus-organisasies se gebruik van die Twitterplatform se unieke mikroblog eienskappe (byvoorbeeld 'direct messaging', '@mentions' en URL skakels) in Tweets. Die teoretiese paradigmas van media funksionalisme, die inligtingsamelewing en die openbare netwerksfeer is gekombineer en benut in die studie om 'n unieke hibriede teoretiese model te ontwikkel wat die wetenskaplike analise van die studiefenomeen moontlik kon maak. Metodologies is 'n gemengde metode rekenaargesteurde benadering (die Tableau® sagteware-toepassing) benut om Twitterboodskappe van Suid-Afrikaanse nuusorganisasies te ontleed wat aan die #FeesMustFall gesprek deelgeneem het. Die studiebevindinge dui op enkele tekortkominge en inkonsekwentheid rakende nuusorganisasies se gehalte van joernalistieke inligting wat op Twitter gepubliseer is. Die studie sluit af met 'n bespreking en 'n stel aanbevelings op drie vlakke, naamlik die empiriese, die teoretiese en die metodologiese. Die primêre aanbeveling vanuit die studie is egter dat Suid-Afrikaanse nuusorganisasies moontlik moet herbesin oor hul huidige publiseerstrategieë met betrekking tot Twitterinhoud sowel as om hul praktyke vir Twittergebruik beter te verfyn.

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## **CHAPTER 1: Introduction**

### **1.1 Personal motivation for this study**

As a media professional, one of the core aspects of my job involves the regular scanning of the newsmedia for interesting and relevant news. I have found Twitter to be a good way to engage online on issues of public interest. Moreover, on some public-interest issues, I can get a fairly good idea of what is being debated in the networked public sphere. The networked public sphere is theorised as a gradually emerging “new public sphere” (Benkler, 2006:10, 212). The network public sphere—as theoretical concept—is discussed in section 3.6 of Chapter 3.

Reading about unfolding news that is published on Twitter allows me to quickly gauge what possible grassroots sentiments there might be relevant to certain newsworthy issues. The internet facilitates mediated discourse, thus promoting democratic participation (Bosch, 2010:268). For this reason, with the use of “mediating technology” (Hermida, Fletcher, Korell & Logan, 2012:816), I was able to gauge what many Twitter users had to say about multiple issues underpinning the #FeesMustFall debate. My growing interest in the #FeesMustFall phenomenon began because I was personally participating in the #FeesMustFall Twitter-debate by posting tweets and retweets of my own. During my online exchanges on Twitter, I observed how several news organisations were also publishing tweets featuring the #FeesMustFall hashtag. I got curious about the nature of various South African news organisations’ tweet-activity being published. For example, for tweets containing the #FeesMustFall search term, I wanted to know which South African news organisations were tweeting more aggressively than other news organisations. Similarly, I was curious as to which news organisations were providing links to in-depth news articles featured on their websites, so that I could follow these links in order to read more meaningful information being reported upon by the news organisation. As such, I wondered just how much quality information about #FeesMustFall was being provided by South African news organisations in particular. My growing curiosity surrounding the tweet-activity of South African news organisations prompted me to initiate a structured study of a large sample of #FeesMustFall-related tweets, mined directly from Twitter itself.

### **1.2 Research Problem**

The convergence of news media and social networks has resulted in the media industry being “challenged by a complex environment” (Villi *et al.*, 2016:289). This suggests that an ensuing tension between the news media and social networks might exist and, if not managed and understood, this tension might well grow stronger as time goes by. For example, large news organisations “appear to

break stories days after they've appeared on Twitter" (Krotoski, 2011, para.9). Arguably, this might well be leading to a decline in the quality of contemporary journalism. Thus, for these (and other) reasons, newspapers have begun to feel "the pressure to follow readers and advertisers onto the Internet" (Wellbrock, 2016:83). Villi *et.al* (2016:289) state that:

...it is not surprising that most of the so-called legacy media companies are keen on adapting their offerings to the networked communication environment and playing an active role as part of the social networks.

However, there are journalists who have reported that they find no value in the use of Twitter (Buttry, 2012, para.1). Consequently, it might be that South African news organisations share similar sentiments, prompting a specific manner in which they choose to use Twitter or not. If news organisations are using Twitter, a key question to think about, is in what repetitive (or not) manner do they post their tweets on Twitter?

A common assumption is that Twitter promotes some degree of interactivity between users, but just how positive a contribution South African news organisations are indeed making in a digital realm that is so dominated by ordinary individuals is largely unknown. Moreover, with articles that typically explore topics such as: *Is Twitter the news outlet for the 21st century?* (Coyle, 2009), or *Why Twitter matters for media organisations* (Rusbridger, 2010), my motivations for exploring South African news organisations' use of Twitter gained momentum. I was interested in determining how—in particular—South African news organisations were playing their own active role (or not) on Twitter. My search of the internet delivered some information about #FeesMustFall (Abarder, 2015; Davis, Swingler & Van der Merwe, 2015; Echle, 2015; Findlay, 2015, n.d.; Hosken, 2015; Maggs, 2015; Quintal, 2015; Van Schalkwyk, 2015). However, information that looked specifically at news organisations' participation in #FeesMustFall was not forthcoming. Moreover, what was also problematic (during the preliminary stages of my investigation into South African news organisations' #FeesMustFall tweet-activity) was that I was unable to obtain well-grounded empirical insight into the nature of news organisations' tweets.

Villi *et.al* (2016:289-290) suggests that news organisations are resorting to the incorporation of "social media features into their online practices", such as "Facebook Recommend and Twitter buttons", with the intention of enabling their audience to share and distribute their own news content. However, after conducting my own cursory inspection of South African news organisations' #FeesMustFall tweet-activity, I was unable to accurately assess what types of Twitter practices South

African news organisations might be employing to share and distribute their own content. Moreover, it was not apparent how South African news organisations' were using some of the Twitter platform's unique microblog features (e.g., direct messaging [DM], @mentions, and URL links). Similarly, I was unable to determine how South African news organisations' tweet-activity was impacting the Twitter networked public sphere. Moreover, without a significant sample of #FeesMustFall-related tweets, I was unable to extract any meaningful conclusions and possible recommendations about news organisations' #FeesMustFall-related tweet-activity on the networked public sphere. However, if I was able to obtain meaningful conclusions from an empirical study that yielded valuable insights into news organisations' use of Twitter, then I could make subsequent recommendations that might make a small contribution towards alleviating the tension between news media and social networks. For example, dependent upon what might be revealed in the findings of such an empirical study, recommendations and interventions in journalism education could form part of the proposed set of solutions.

### 1.3 Background

#FeesMustFall was the largest student demonstration since Apartheid (Jenkins, 2015). On 8 October 2015, the student representative council (SRC) at the University of Witwatersrand (Wits University) indicted their dissatisfaction with an official announcement to increase fees for the 2016 academic year (ENCA, n.d.). This gave rise to the #WitsFees hashtag (ENCA, n.d.) being used on Twitter, thereby marking the beginning of a massive student uprising that was to dominate much of the news for several months to follow. The first official student protest-march followed on 14 October 2015, culminating in Wits students and staff being prevented from entering the university's premises (Wakefield, 2015). By now, the #WitsFeesMustFall and #WitsShutDown hashtags had risen to prominence on Twitter. On Monday 19 October 2015, after suspending its initial 10.5% fee increase announcement,<sup>1</sup> fee negotiations were restarted at Wits University and all regular university activities were suspended (Ngcobo, Kubheka & Corke, 2015). By Monday 19 October 2015, the University of Cape Town (UCT) and Rhodes University started experiencing similar student protests (Kekana,

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<sup>1</sup> Suspension of the decision to increase fees was announced on Saturday morning, 17 October 2015 (Quintal, 2015).



Isaacs & Corke, 2015) to that which was being experienced at Wits University. There were also reports that similar student protests were taking place at the Stellenbosch University campus, as well as the University of Fort Hare campus (Kekana *et al.*, 2015). On Tuesday 20 October 2015, students at Wits University rejected a 6% fee increase counter-offer, demanding instead a zero percent (0%) increase (“Students Reject 6% Cap”, 2015). The student protests spread to other campuses with the South African Police Service (SAPS) being involved in stand-offs with students at the Cape Peninsula University of Technology (CPUT) and the University of Fort Hare (Koyana & Kekana, 2015). Angry students threatened to make university institutions ungovernable (Koyana & Kekana, 2015).

At UCT, all classes were suspended with the university obtaining a court interdict to prevent protesting students from occupying any of its buildings (Moss, Arendse & Krige, 2015). Protesting students defied this court order and were later arrested by the police (Moss *et al.*, 2015). By Wednesday 21 October 2015, a significant crowd of approximately 5000 students from UCT and CPUT marched on, and pushed their way through the gates of the South African Parliament in Cape Town (“Riot police vs student power”, 2015). Sporadic scuffles broke out between the police and protesting students, leading to a handful of students being arrested for contravening the National Key Points Act (“Riot police vs student power”, 2015). By now the #FeesMustFall hashtag had risen to prominence in the mediasphere. As such, “#FeesMustFall” was the primary hashtag that users were using to tag tweets posted on Twitter. On Thursday 22 October 2015, the #FeesMustFall hashtag was trending on Twitter and, increasingly so, it now featured prominently in news reports. For example, one such news report stated that “Twitter has erupted with support for the #FeesMustFall campaign” (Van Schalkwyk, 2015). On Friday 23 October 2015, President Jacob Zuma announced that there would be a zero increase for the 2016 academic year (Hosken, 2015). Baker (2015), in an online news report featured on Time.com, wrote that “[c]ommentators on TV and radio called the students’ campaign, marked by the hashtag #FeesMustFall, a victory and hailed the action as South Africa’s ‘Education Spring’”.

Note: Thursday 15 October 2015 marks the beginning-date for this study and Friday 23 October 2015—the day on which President Jacob Zuma made his zero percent increase announcement—marks the end-date for this study.

#### **1.4 Problem statement and focus**

Research conducted by Media Tenor revealed that Twitter was the number-one social media platform for the #FeesMustFall campaign (Maggs, 2015). For this reason, Twitter was likely to have been most

news organisations' preferred social media platform for engaging the public about the #FeesMustFall event that was unfolding at the time. This wasn't a certainty though. Obtaining empirical certainty would require the examination of a significant collection of tweets first. As such, the research problem presented a complex scenario because, from the casual inspection of isolated tweets alone, the author of this study was unable to evaluate how news organisations used Twitter as part of their coverage of #FeesMustFall.

In short, the primary focus of this study is to explore South African news organisations' #FeesMustFall tweet-activity that took place on the Twitter networked public sphere for the period 15 to 23 October 2015.

## **1.5 Theoretical points of departure and research questions**

### **1.5.1 Theoretical points of departure**

The primary departure points for this study commences from functionalist media theory, information society theory and networked public sphere theory. Collectively these theories constitute the theoretical foundation for this study. A brief overview of these individual theories follows.

Merton (cited in McQuail, 2010:98–99) states that functionalist theory has to do with “social practices and institutions in terms of the ‘needs’ of the society and of individuals”. Moreover, McQuail (2010: 98–99) says that according to functionalism, society itself is a complex system comprising many “subsystems” that each [uniquely] contribute to the continuity and order of that society. The media is one such subsystem (McQuail, 2010:98). As such, media functionalism relates to certain functions that the media contribute towards society. McQuail (2010:98–99) names a “set of basic ideas” that constitute the 5 main functions/tasks of the media in society. These functions/tasks include (McQuail, 2010:98–99):

- “providing information about events and conditions in society and the world”
- facilitating correlation: to explain, interpret and comment “on the meaning of events and information”
- offering continuity by revealing the dominant culture, identifying subcultures and new cultural developments, and “forging and maintaining commonality of values”
- providing entertainment: “providing amusement, diversion ... reducing social tension”
- engaging in acts of mobilization: “campaigning for societal objectives in the sphere of politics...”

Moreover, a notable proposition of functionalist theory of the media is that the media (being an “institution of society”) is necessary for “adaption and change” in that it facilitates the management of tension (McQuail, 2010:100). A further proposition of functionalist media theory is that “there are also unintended harmful effects which can be classified as dysfunctions” (McQuail, 2010:98–99). For this study, the author makes use of functionalism to describe certain key aspects related to the #FeesMustFall phenomenon. Coupled with this, a specific theoretical notion derived from normative functionalism known as “democratic-participant theory” (Fourie, 2004:267) will be used to describe how news organisations should ideally be operating in similar scenarios that closely resemble the conditions of the case study being explored in this study. Aspects of functionalism and normative functionalism will be discussed in greater detail in section 3.3 of Chapter 3.

A common assumption attributed by cyber-optimists<sup>2</sup> to new communications technologies is that these foster revolutionary social transition (McQuail, 2010:104). Melody (cited in McQuail, 2010:104) describes information societies as:

those [societies] that have become ‘dependent upon complex electronic information networks ... [and as such, these (new) ‘information societies’] allocate a major portion of their resources to information and communication activities’.

A main proposition of information society theory is that “society is characterized by increasing interconnectivity” (McQuail, 2010:107). This interconnectivity brings with it a considerable amount of “dependence on others” (McQuail, 2010:105). Note however, that “the ‘information economy’ is much larger than the mass media on their own, and [in essence] the primary information technologies involved are not those of [the media]” (McQuail, 2010:106). Rather, these are owned by large multinational corporations such as Twitter Incorporated and Facebook Incorporated. For these reasons, news organisations are obliged to “interconnect” (i.e. participate) on information technology

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<sup>2</sup> In essence, cyber-optimists “believe ...that digitalisation means progress and will make the future better than the past” (Souter, 2017, para. 4).

platforms like Twitter so that they can be a part of the information economy. As such, it must be kept in mind that even though the media (i.e. individual news organisations) may participate in an online space like Twitter, the media does not have full control over this online space. Thus, one may reasonably conclude that most news organisations would be but one of many interconnected participants that engage in online spaces like Twitter despite not being the owners thereof.

The notion of the information society, and the assumed positive value that participants contribute within its complex societal network, is strongly contested by Webster (2014), a prominent scholar and critic of the more idealistic notions of the information society. Some scholars, like Van Dijk and Castells (quoted in McQuail, 2010:105) prefer to use the term “network society” instead of “information society”. Van Dijk (2005:240) has suggested that modern society is continually evolving towards a “network society” that is “increasingly organizing its relationships in media networks which are gradually replacing or complementing the social networks of face to face communication”. This alternative description to the information society will be discussed in section 3.4 of Chapter 3, whilst also taking Webster’s (2014) critical views of the notion of the information society into account.

The original notion of a classic Habermasian public sphere theory (Habermas, 1989) is partially relevant to this study because the underlying theory informs the “role of the mass media in political life” (McQuail, 2010:179). However, for some time now—owing to a public driven by consumption—a decline in the normative ideals of the original public sphere have been taking place (Fourie, 2007:332). There are numerous authors who have questioned the “quality and value of the information and knowledge provided by the media” (Fourie, 2007:139). Nonetheless, the classic Habermasian concept of the public sphere remains partially relevant for its “conceptual rather than physical” attributes of theoretical value (Boeder, 2005:3). Importantly though, whilst social networking sites may well have been “theorized as the latest generation of a form of the public sphere” (Hermida *et al.*, 2012:816), this “form of the public sphere” is best identified as the networked public sphere. This is so because, in the digital realm of the internet and online journalism, there exists the “possibility of forming a more inclusive public sphere, where everything can be discussed and to which all [participants] have access” (Correia, 2012:112). An important question to consider is whether traditional mass media “as a political force, is independent enough not only of political, but also of commercial pressure to achieve the journalistic ideals of political debate, namely representation, exposure and the mobilisation of citizens to participate in public life” (Fourie, 2007:139). The emergence of new media offers new perspectives and possible answers to these kinds

of questions. McQuail (2010:180) asserts that “positive expectations concerning the role of the media in the public sphere have often been expressed in relation to new media”. For this study, the interplays between Twitter (as a new media phenomenon) and society are best investigated within the context of the notion of the networked public sphere. For this reason—within the digital realm of the internet and online journalism—conceptual elements of Habermas’ classic notion of the public sphere is best-matched to a more contemporary manifestation thereof, namely, the networked public sphere.

McQuail (2010:181) lists several reasons why the media are still expected to make a positive contribution, by supporting the democratic public sphere—these are to:

- “[enlarge] the space for debate”
- “[circulate] information and ideas as a basis for public opinion”
- “[interconnect] citizens and governments”
- “[provide] mobilizing information”
- “[challenge] the monopoly of government over politics”
- “[extend] freedom and diversity of publication”

The author of this study contends that it is within the theoretical framework of the networked public sphere that the aforementioned expectations of the news organisations are best facilitated. Thus, for this study, the points raised in this discussion offer feasible guiding principles for the ensuing analysis and assessment of news organisations’ #FeesMustFall tweet-activity that took place on the Twitter networked public sphere. Chapter 3 discusses these guiding principles at more length. The chapter includes an explanation of some guiding principles of networked public sphere theory, which is a contemporary derivative of classic Habermasian public sphere theory.

To conclude this sub-section then, it is first necessary to underscore why these three particular theories have been aligned with one another in order to form the overall inclusive theoretical framework (i.e. paradigm) for this study. Generally speaking, the value of theory lies in the fact that it teaches how to “describe, interpret, understand, evaluate and predict” certain phenomena (Fourie, 2004:230). Fourie (2004:231) says that, in media studies one may encounter “different theories about the same thing ... [but that] each (new) theory may add and/or emphasise a different aspect of the phenomenon” being researched, and which ultimately facilitates a “better understanding of the phenomenon.” Specific to mass communications theories—on the basis of ontology (how reality/society is viewed) and epistemology (how knowledge is evaluated)—Fourie (2004:237) categorises mass communication theories and research into four broad paradigms; namely: “administrative, critical,

technological deterministic and information society”. Functionalist media theory falls within the broader administrative category of theories. Administrative theories “are grounded in positivism, functionalism and behaviourism” (Fourie, 2004:239). As per Fourie’s (2004:237) classification, information society theory is a category of theory that stands separate and thus exists on its own. Lastly, public sphere theories fall within the broader category of critical theories (Fourie, 2004:239) and which applies to networked public sphere theory too. As such, critical research (which is informed by critical theory) focuses on—amongst others—the “analysis of media content with the context of [an] entire society...” (Fourie, 2004:239). Thus, for this study, there is an interesting and relevant link that is forged between the networked public sphere and information society theories because both are able to inform analyses and findings relevant to South African society. Fourie (2004:239) says that schools of different theories “are not necessarily exclusive of each other” and as such, may share some of the “beliefs and points of departure.” This notion of shared beliefs and points of departure in different theories provides a reasonable explanation why McQuail (2010:13) believes that, for media studies and research, “there has been a trend to convergence between the different schools [of theory.]” Therefore, “the main purpose of theory is to make sense of an observed reality and guide the collection and evaluation of evidence” (McQuail, 2010:5). Accordingly, for this study, the use of this particular combination of theories serves to support a more holistic and inclusive set of guiding principles that best-facilitated the evaluation and conclusions about South African news organisations’ tweet-activity on the Twitter networked public sphere.

### **1.5.2 Research questions**

The primary research question for this study was: For #FeesMustFall, how did South African news organisations engage the Twitter networked public sphere? Pursuant to this primary research question, the following secondary research questions arise:

- With relevance to the Twitter data-set for this study, which Twitter accounts were those of South African news organisations? Additionally, determine how news organisations’ Twitter accounts might be sorted in sub-categories in order to offer additional nuanced insight and meaning to the data being analysed. What are the names and descriptions of these sub-categories?
- What was the nature of these South African news organisations’ tweets? For this to be examined the following sub-questions need to be researched and answered:

1. How many tweets were exclusively those of the South African news organisations—in proportion to the total data-set?
2. In relation to tweets tweeted, how many followers were there for each of the South African news organisations?
3. Who was being mentioned in the news organisations' tweets?
4. What additional hashtags were being used in the news organisations' tweets?
5. How many tweets were original (i.e. new) and how many were only retweets?
6. What was the overall tweet-volume for the date-period under review (i.e. time series graph)?
7. What was the most popular time of day for posting tweets?
8. Which was the most prominent news organisation category on Twitter (measured by volume of tweets)?
9. How many times were news organisations referencing external content via embedded links?
10. What additional qualitative aspects are evident in the data-set of South African news organisations' tweets— discuss?

## **1.6 Research design and methodology**

### **1.6.1 Research design**

This study uses a mixed-method research design for a case study, which involves:

1. Researching the quantitative components of the Twitter data-set by means of computer-assisted (using *Tableau*<sup>®</sup>) quantitative content analysis.
2. Researching the qualitative component (i.e. the tweet's text field) of the Twitter data-set was done by means of qualitative content analysis.

### **1.6.2 Research Methodology**

Mills, Durepos and Wiebe (2010, para.1) state that:

Mixed methods is a research paradigm that combines specific positivistic elements of quantitative research methods with specific constructivist elements of qualitative research methods. Generally, this [mixed methods] approach can be sequential or parallel, with the quantitative and qualitative approaches used alternately or together to investigate the same phenomenon.

This mixed methods study is coupled to a case study—the case of #FeesMustFall. The case study approach is “guided to obtain a specific desired outcome ... by answering an evaluative research question” (Du Plooy, 2004:180). The use of the case study approach for this study will be well-suited to “how” and “why” research questions (Wimmer & Dominick, 2005:138).

Brief descriptions of this study’s sampling, data-gathering and data-analysis follows:

The Twitter data will be mined using Twitter’s public REST API. Twitter’s public REST API has certain limitations which will be discussed in greater detail in section 4.3 of Chapter 4. For reasons which will become apparent later, not every single tweet featuring the #FeesMustFall hashtag will be collected (Findlay, 2016). Two Twitter data-fields (e.g., tweet text and retweeted status text) will require a qualitative content analysis approach. This approach is to be taken because the use of a combination of “qualitative and quantitative techniques enhances legitimation [of the findings and conclusion, because] the qualitative analyses involve descriptive precision and the quantitative analyses ensure numerical precision” (Mills *et al.*, 2010). The *Tableau*<sup>®</sup> software tool will be used for the computer-assisted data-analysis for this study. The quantitative data analysis is to be made possible by examining a combination of reports and layouts generated by *Tableau*<sup>®</sup>. The qualitative data analysis will be made possible by post-coding certain fields within the Twitter-data set and transposing these coded results to Microsoft Excel for further analysis and interpretation.

The research design and methodology is discussed in detail in Chapter 4.

## 1.7 Chapter layout

The full discussion for this thesis is structured into chapters which constitute the overall framework for this thesis. The chapter layout is as follows:

Chapter 2—This chapter provides a literature review of journalism in the age of social media:  
Twitter, social media, and the role of the media in the digital age.



Chapter 3—This chapter discusses the theoretical framework underpinning this study: functionalist media theory, information society theory, and networked public sphere theory.

Chapter 4—This chapter describes the research design and methodology for this study.

Chapter 5—This chapter reports on the data-analysis and research findings for this study.

Chapter 6—This chapter discusses overall conclusions and recommendations that stem from the research findings produced from this study.

The next chapter provides a literature review of journalism in the age of social media: Twitter, social media, and the role of the media in the digital age.

## **CHAPTER 2: Literature review**

### **2.1 Introduction**

This literature review deals with issues of a broad and general nature first. Gradually the discussion gains narrow and particular focus. The discussion starts by taking a look at news organisations, journalists, and the changing role of journalism within the age of social media. Secondly, the discussion deals with the nature of social media in relation to news organisations and journalism. Thirdly, the discussion covers a significant overview of the nature of Twitter and tweets as social media, within the context of journalism. The fourth aspect of the discussion briefly touches on Twitter in relation to news organisations and the networked public sphere. Finally, the discussion deals with most applicable literature relevant to #FeesMustFall.

### **2.2 News organisations, journalists, and the changing role of journalism within the age of social media**

Section 1.2 of Chapter 1 refers to a tension that exists between news organisations and social networks. This tension arises whilst news organisations and social networks find themselves “on each other’s turf”, thereby triggering an impact on “both news organizations and social media platforms, along with their audiences and users” (Braun & Gillespie, 2011:383). For this reason, seemingly there is a rise in the diminishing power of the news media (Lovink, 2007:18), with the public’s conceptions of reality originating less from professional journalism (Donsbach, 2014:661).

To add to this tension, some scholars believe that news organisations are not as financially secure as they once were, and are thus unable to truly invest in journalism (Ndlovu, 2015:127). However, Deuze (2008:4) states that, because the “media profession [is] so central to society’s sense of self, it is of crucial importance to understand the influences of ...[and] the appropriation of technologies on the nature of work in journalism”. Journalistic roles are being forced to change because they are undergoing an evolution of sorts. The present role that social media plays in many news organisations’ business models is an uncertainty, yet it is becoming increasingly evident that the “distribution of newspaper content through social networking sites” is becoming increasingly more common, with Twitter being regarded as the more effective method for reaching the audience (Ju, Jeong & Chyi, 2014:1). News organisations are able to distribute content to social media, by encouraging readers to “like” and “tweet” stories and articles initially published on its primary websites (Singer, Domingo, Heinonen, Hermida, Paulussen, Quandt, Reich & Vujnovic, 2011).

Donsbach (2014:666) states that journalism has a social function and it is therefore imperative that “journalists widen their societal role”. For this reason, it would be reasonable to assume that news organisations may well be involving themselves in Twitter debates in order to adjust to these newly evolving roles. These evolving journalistic roles do not make traditional journalism obsolete (Donsbach, 2014). Donsbach (2014) believes this to be the case because there will always be a need for validated information, a shared reality, and trusted and trustworthy institutions. News organisations have an ongoing role to fulfil in a society, which includes how journalistic products are disseminated to the public. Thus, for example, in order to prepare for these changing roles, Wenger and Owens (2012:23) state that “[journalism] educators would do well to get ahead of the industry need by preparing students ... to step into leadership roles in the area of social media and mobile delivery ... by [helping] them [to] see how social media can be used as a newsgathering and dissemination tool”. At an early stage (i.e. during journalism education) this might well address and alleviate some of the tensions that is being discussed here. After all, it is through an educational process that one might be able to adapt, prepare and manage the future role/s of news organisations. For example, Hermida (2010:302-303) states that:

The growing volume of content on micro-blogging networks suggests that one of the future directions for journalism may be to develop approaches and systems that help the public negotiate and regulate this flow of awareness information, facilitating the collection and transmission of news. *The purpose of these systems would be to identify the collective sum of knowledge contained in the micro-fragments and bring meaning to the data* (own emphasis).

Using Hermida’s statement as an example, firstly, it ought to be evident that preparing for the future directions for journalism involves recommendations that could be implemented at a journalism education stage of the solution process. Secondly, in pursuit of likely solutions, this study may make a small contribution to future directions for journalism, because it investigates micro-fragments (i.e. individual tweets) in a big data-set, in order to gain insights into South African news organisations’ tweet-activity in the networked public sphere.

In the pursuit of solutions, at a time when news organisations are battling to hold the attention of audiences in a media-saturated world, “social networking sites (SNS) have created novel opportunities for journalists to connect with followers online” (Holton & Lewis, 2011:para.1).

Journalists working at news organisations are increasingly beginning to turn to digital media in order to “practise their craft, reach new audiences, and sometimes even to change the notion of who [practises] journalism” (Bosch, 2010:265). However, holistic solutions will not come from simply turning to digital and connecting with online audiences. In other words, embracing digital media does not necessarily result in better journalism or a strengthened democracy (Daniels, 2016a:1). Rather, during the pursuit of holistic solutions, perhaps opportunities for further research and analysis needs to be identified. For example, Donsbach (2014:673-674) states that:

Possibilities for journalists to do research and for people to have a voice—even in non-democratic systems—[has] never been better. The web and social media also offer new *forms of a public sphere* [i.e. the networked public sphere]... (own emphasis)

When considering solutions, one must also keep in mind that “content is an important influence” (Deuze, 1998, para.1) in setting the public agenda and fostering debate in the networked public sphere. As such, it is content that determines the extent to which audiences “perceive the world”, and it is in particular, the journalists working at news organisations who are ultimately “responsible for the content of the media” (Deuze, 1998, para.1). For example, the constant flow of content on Twitter, “when used to spread and comment on the news, ... results in a stream of information, opinions and emotions related to current events” (Bosch, 2017:227). The result is “a journalism derived from the absorption and negotiation of microcontent within complex media environments” (Ausserhofer & Maireder, 2013:294). Hermida (2010a:297) refers to this phenomenon as “ambient journalism”, defining it as:

broad, asynchronous, lightweight and always-on systems [that] are enabling citizens to maintain a mental model of news and events around them, giving rise to awareness systems ... [described] as ambient journalism.

Regarding the ambient nature of these awareness systems, some scholars observe that “[j]ournalism is less of a final product presented to the audience as a definitive rendering of events, than a tentative and iterative process where contested accounts are examined and evaluated in public in real-time” (Hermida, 2012:665). Consequently, Twitter is impacting the changing role of journalism because the core journalistic norms of gatekeeping and framing are being reshaped from outside the field of journalism (Hermida, 2013a: 304). As such, Hermida (2010:300) believes that Twitter engagement

(i.e. “micro-blogging”) is “a form of participatory or citizen journalism, where citizens report without recourse to institutional journalism”. Deuze (2005:452) argues that this has resulted in a “shift from individualistic, ‘top-down’ mono-media journalism [towards] team-based, ‘participatory’ multimedia journalism”. Thus, we see that journalists working at news organisations are but a part of “many voices in public communication”, with less control as before on information flows in the public sphere (Deuze, 2008:12).

Therefore, on the premise of the preceding discussion, the complexity of issues underlying the tension that exists between news organisations and social networks should be plainly evident. Consequently, with these combined factors at play—i.e. news organisations, journalists, and the changing role of journalism within the age of social media—researching the “quality of the public discourse” (Donsbach, 2014:671) ought to be a research imperative for journalism scholars. Hence, to facilitate the research of public debate taking place on social media, case-studies like #FeesMustFall might be a helpful way to determine how news organisations involve themselves in such public debates in the networked public sphere. In particular, this study seeks to illuminate news organisations’ involvement in public discourse on Twitter, such that, for example, the quality of their engagement with the public might be more rigorously analysed and thus better understood.

### **2.3 The nature of social media in relation to news organisations and journalism**

Social media, through its “networked structures and mechanisms”, facilitates collaboration for individuals that is free from any form of “central coordination” (Hermida, 2016:82). Social media facilitates “interactive multicasting”, commonly termed, many-to-many broadcasting, such as Twitter’s retweeting functionality (Murthy, 2012a:1061). This “many-to-many framework that is public, archived and searchable” demonstrates how the relationship between journalists and audiences is evolving into a more “participatory and collective system” (Hermida, 2010b:1–2).

The potential for social media to be used as a journalistic tool is already well recognised by news organisations that use “social media marketing to attract online audiences” (Hong, 2012:69). Daily, journalists are using the functionalities embedded in social media “to gather, filter, and disseminate the news” (Siapera & Veglis, 2012:324). Herrera and Requejo (2012:79) state that news organisations are obliged to participate in social media, of which Twitter and Facebook “play central roles”. New media terrain carries implications for democratic engagement (Moy & Hussain, 2014:92-100) where “citizens’ use of ‘niche news’ can profoundly shape what they know about their social world”, thereby impacting their feelings on newsworthy issues that may well “mobilize [citizens] to action”. An

interesting characteristic of social media, particularly during times of crisis, is that communities are formed from the convergence of news organisations and users on social media (Goolsby, 2010:1). This gives rise to the “growing significance of the participatory audience” (Villi *et al.*, 2016:289). During times of audience participation, Hermida (2016:86) says “social media has emerged as a channel to contest mainstream media narratives”. Moreover, social media facilitates the formation of “new relations that disrupt authorial structures and established flows of information” (Hermida *et al.*, 2012:816). This suggests that “a major shift may be taking place in how the public learns about the world around them”, with few members of the news-reading public obtaining information from mainstream news media and social media (Hermida, 2016:83). In other words, there is a trend towards the public being able to make sense of their world through new modes of information gathering. Seemingly, no longer does the public need to rely solely on information being imparted through the mainstream news media. Rather, what this might be suggesting, is that social media serves to amplify messages (Beckett, 2017) already encountered on mainstream news media. The converse of such a scenario however, is that information (i.e. content) featured on mainstream news media, when not amplified by social media, will not reach the public with the same level of intensity and importance. This is somewhat problematic and serves to expose yet another reason for the tension that exists between news organisations and social media.

The reality of the matter though, is that social media is of strategic importance to news organisations, because the retention of audiences sustains commercial profitability (Harper, 2010). However, social media is susceptible to changing “social and cultural habits of audiences” (Hermida, 2010:303-304). Therefore, news organisations are, for example, beginning to appoint Twitter correspondents and social media editors (Hermida, 2010a: 299, 2013a: 296; Siapera & Veglis, 2012: 324) in an effort to stay abreast of possible sudden changes in the social and cultural habits of social media audiences. From a South African audiences perspective, Bosch (2013:123) explains that the youth, regardless of their high levels of trust in the mainstream media, demonstrate high engagement with social network services. “Six out of ten or 61.3%” of youths at South African tertiary institutions indicated that “they rely on social media as a news source” (Bosch, 2013:123). Ndlovu (2015:114) states that “maintaining the South African public sphere of informed citizens is under pressure” because of a “growing, independent digital/online journalism that is more interpretive” (Ndlovu, 2015:114). Thus, we see that news organisations are seemingly obliged to turn to digital/social media journalism to counter this mounting pressure and by so doing, perhaps this too might alleviate some of the underlying tension that exists between news media and social networks.

## 2.4 The nature of Twitter and tweets as social media, within the context of journalism

Twitter is of prime importance to journalism (Hedman, 2015:279). Increasingly so, journalists are using Twitter (and Facebook) as professional tools (Bosch, 2010; Hermida, 2013a; Jordaan, 2013; Ramluckan, Ally & Van Niekerk, 2017). Gruzd, Wellman and Takhteyev (2011) explain that the study of Twitter contributes towards a greater understanding of why “people use new communication technologies to form new social connections and maintain existing ones”. Twitter is classified as a microblog (Alejandro, 2014:3). Twitter is also a news source (Hermida, 2013a:296). Murthy (2012b:1061) says that Twitter is event-driven, with a broad spectrum of unrelated users being able to “tweet side-by-side”. Newman, Levy and Nielson (2015) view Twitter as a high-profile social media network that is a popular source for news. A notable change taking place in “digital media” is the growth in news being accessed by social media sites like Twitter (Newman, Levy, Nielsen & Fletcher, 2016:8). On social media the “fragmented news experience” involves small fragments of content being produced by a broad assortment of citizens, which “can be collectively considered as journalism” (Hermida, 2010b:3). However, with innumerable fragmented news experiences taking place all the time, it becomes “impossible for an individual journalist to identify the collective sum of knowledge contained in the micro-fragments, and bring meaning to the data” (Hermida, 2010b:4). For this reason, Hermida (2010b:4) advises the use of “tools that can analyse, interpret and contextualise a system of collective intelligence”. This study used a computer-assistive tool to assist with the analysis and interpretation of the Twitter data-set.

A characteristic of news featured on social media is its omnipresence of unstructured raw fragments of data, which can be seen as “unprocessed journalism” that stems from professionals and the public (Hermida, 2012:659). As such, news organisations must know what content users wish to consume and how this content ought to be shared (Olmstead, Mitchell & Rosenstiel, 2011, para. 6). This impacts “how stories are put together and even what stories get covered in the first place” (Olmstead *et al.*, 2011, para. 5). On Twitter in particular, Hermida (2013a:304) says that “long-standing distinctions between newsmaker, news reporter and news consumer” become indistinct. Moreover, Hermida (2013a:304) contends that “Twitter is emerging as a hybrid space for the cultural production of journalism, with citizens involved in the flow, framing and interpretation of news ... [resulting] in a hybridity of old and new news values”. Twitter is changing the way in which journalistic endeavours are being performed, produced and published, but this does not in any way change the “core professional values” of journalism itself (Hedman, 2015:287). However, the manner in which news organisations are adapting to the use of Twitter is not uniform, with news organisations seemingly

using “different strategies” to do so (Armstrong & Gao, 2010:231). For example, research results from Armstrong and Gao (2010:231) reveal that:

...broadcast news organizations are more likely to employ more than one element in stories linked from their Twitter feeds; and newspapers are more likely to have only text in their links.

This does not imply, however, that news organisations are by default, using Twitter in innovative ways (Armstrong & Gao, 2010:232). For this reason, this study firstly seeks to explore the likely set of ways in which South African news organisations are using Twitter. Then, secondly, as alluded to in section 1.5.1 of Chapter 1, this study will endeavour to make recommendations by describing how news organisations should ideally be making use of Twitter.

Turning the attention to some of the specifics of Twitter usage in South Africa, Bosch (2016:161) notes that from “a total population of 54.73 million, there are 26.84 million active internet users in South Africa, with a 20% growth of social media usage between 2015 and 2016.” Of these 26 million active internet users, a recent 2016 survey reveals that Twitter users have grown by 12% to a total of 7.4 million Twitter users (“Social Media South Africa”, 2016). Patricios and Goldstuck (2017:5) estimate that there are 7.7 million Twitter users in South Africa, which means that a significantly portion of the public engages and interacts on Twitter. Thus, if news organisations were to leverage such a large public audience size to good effect (using sensible audience engagement strategies for the networked public sphere), then it is likely that any underlying tension between news organisations and social media might be significantly diminished.

Turning the attention to that of social media organisations and their networks, Wasike (2013:8–9) observes that Twitter Incorporated described itself as “a real-time information network that connects [users] to the latest stories, ideas, opinions and news about what [they] find interesting” (Wasike, 2013:8–9). From this quotation, it is interesting to note that Twitter strongly aligns itself with journalism and journalistic products such as “latest stories ... and news”. Thus, on the part of this particular social media network (i.e. Twitter Incorporated), seemingly there is a favourable regard for the news media. Thus, this would suggest that much of the tension that exists between news organisations and social media is a perceived experience on the part of the news organisations only. One possible reason for this perceived experience by news organisations, could be because, as Goolsby (2010:3) suggests, the Twitter platform is seen and experienced “as chaos, rather than order”, asserting that Twitter is not adequately suited to “assist [the public and society] in a crisis”. However,



Herrera and Requejo (2012:79) believe that “most broadcasters underuse the technology by only posting news headlines or using it for self-promotion while failing to adequately engage with their audiences or link to external content”. Consequently, one can reasonably assume that the tension being experienced between news organisations and social media is not a mutual experience. Instead, this tension is more strongly felt by news organisations and possibly less so by social media organisations. This might be so because news organisations do not fully understand or recognise the changing contexts within which they ought to be engaging social media. In other words, within the broad context of convergence of news media and social networks, it might be that news organisations don’t fully leverage their use of Twitter to its fullest effect? This study seeks to explore and make recommendations on this possibility, if it does indeed exist.

JournalismResearchNews.Org reports that “news organisations play a crucial role in many [news] events’ Twitter visibility (“News organisations are central to Twitter networks”, 2016, para. 1). As such, “[n]ews actors on Twitter demonstrate the capacity to ‘stitch’ together unrelated and dispersed communities of users during these events” (Bailo & Vromen, 2016:16). For example, Bailo and Vromen (2016:16) state that:

Public protest events are now both social media and news media events. They are deeply entangled, with news media actors—such as journalists or news organisations—directly participating in the protest by tweeting about the event using the protest hashtag; and social media actors sharing news items published online by professional news agencies.

Owing to the many ways in which news organisations use Twitter, they continue to refine best practices for Twitter usage by, for example, “choosing what content to tweet and for using the application in an optimal way” (Herrera & Requejo, 2012:81). Herrera and Requejo (2012:81) offer a list of “good practices” for Twitter usage, recommending that news organisations should:

...have a human voice, ... retweet and mention other users not related to the medium, ... link to external content to enrich the self-contribution, ... listen to their users and talk with them, ... provide useful information in an appealing way, ... conduct surveys among users, ... promote the most relevant of their content in an attractive manner, ... add multimedia value to their updates, ... [and] link to other networks where media might have a profile.

Moreover, during “emergency situations such as terrorist attacks, political uprisings or suppression, and natural disasters” Twitter has a distinct influence on news (Sheller, 2015:17). Such news, says Sheller (2015:19), is

being “pushed” out to audiences via social media sites including Facebook, Twitter, and Tumblr, where it is mixed with commentary and recommendations from personal social networks, and where the audience/consumer can easily add comments, share items, and re-distribute it to their social networks.

As news organisations continue to refine and improve upon best-practice use of Twitter, they need to keep in mind that subtle evolutionary-type changes in Twitter’s interface “indicates a strategy that emphasizes (global, public) news and information over (personal, private) conversation in restricted circles” (Van Dijck, 2011:340–341). Hermida (2016:84) asserts that news exposure by users on Facebook is “incidental”, whereas users’ news-seeking patterns on Twitter is intentional. Barthel, Shearer, Gottfried and Mitchell (2015:2) state that the “proportion of users who say they follow breaking news on Twitter ... is nearly twice as high as those ... on Facebook ... lending support ... to the view that Twitter’s great strength is providing as-it-happens coverage and commentary on live events”. Seemingly, social media users find and select breaking-news on Twitter and then repost it on Facebook (Newman *et al.*, 2015:81). Tweets by news organisations have a greater impact on the flow of information on Twitter” (Xu, Sang, Blasiola & Park, 2014: 1278). Therefore, news organisations’ dissemination of news strategies may be best-suited towards a global/public audience and not personal/private audiences. Such strategies might impact influence within, and upon audiences in several ways.

Next, whilst remaining focused on the issue of influence, we turn to the notion of opinion leadership. Rogers (cited in Xu *et al.*, 2014:1279) states that “opinion leadership is an individual’s unequal influence on others’ attitude and behaviors”. This notion stems from Katz’s (1957:61) two-step flow hypothesis that advances the theory of how “ideas often flow from radio and print to opinion leaders and from these to the less active sections of the population”. “Retweeting is consistent with the notion of opinion leadership”, therefore a retweet (RT) reflects influence on Twitter (Xu *et al.*, 2014:1281). Hu, Liu, Wei, Wu, Stasko and Ma (2012:2751,2754) identify three types of “opinion leaders” (or “elite users”) that play key roles in the dissemination of news, namely, “individuals affiliated with the media”, the “mass media” [i.e. news organisations] and “celebrities”. Related to types of opinion

leadership, Cha, Haddadi, Benevenuto and Gummadi (2010:10) discuss and compare three types of influence encountered on Twitter, namely “indegree, retweets, and mentions”. A description of each follows (Cha *et al.*, 2010:12):

- Indegree influence, [is] the number of followers of a user, [which] directly indicates the size of the audience for that user.
- Retweet influence, [is] the number of retweets containing one’s name, indicates the ability of that user to generate content with pass-along value.
- Mention influence, [is] the number of mentions containing one’s name, indicates the ability of that user to engage others in a conversation.

This study analyses news organisations’ number of followers, retweets and mentions, in order to determine varying degrees of influence that news organisations may have had in the networked public sphere during the #FeesMustFall period.

Next, as to the Twitter hashtag itself, Bruns and Stieglitz (2013:92) contend that hashtags facilitate Twitter research by making “communicative exchanges comparatively easy to track”. However, tracking tweets over a short period of time is cheaper and easier than tracking tweets over a long term (Bruns & Stieglitz, 2013:92). Bosch (2017:226) contends that a considerable amount of current Twitter-based research “focuses on conversations coordinated by hashtags”. Daniels (2016b) says the hashtag is “a powerful tool for interaction”. For example, the hashtag indirectly leads to the extension and deepening of democracy “through the inclusion of new voices into public spaces” which, may at times even help to “create new public spaces” (Daniels, 2016b:176). Hermida (2016:85) says “the hashtag has emerged as a key method to filter information and participate in discussions on social media beyond a user’s circle of contacts ...[whilst also being] harnessed as a framing device”. The use of Twitter hashtags facilitates the concentration of communities that have a very specific topic of interest, which in turn contributes to the establishment of a “mutual follower/followed relationship” (Bosch, 2016:164). When more than one hashtag is used in a tweet, associations (or links) are created “between trending topics to optimise tweets for Twitter’s search function” thereby enabling users to identify and follow trending news topics (Luescher, Loader & Mugume, 2016:11). Jeffares (cited in Bosch, 2016:162) explains that the retweeting process allows some messages to spread across a network of users at viral proportions within a short space of time. When a particular hashtag draws interest by Twitter users, the rapid formation of ad hoc publics is realised (Bruns & Moe, 2014:22).

The role of Twitter hashtags as a political source is perfect for “placing issues on the agenda for national debate and deliberation” (Bosch, 2016:164).

## **2.5 Twitter in relation to news organisations and notions of the public sphere in relation to the networked public sphere.**

### **2.5.1 Notions of the public sphere and the networked public sphere**

Three common metaphors for the public sphere are: 1. The [classic] public sphere as an extensive network of radars sensitive to social issues, 2. the public sphere as resonance box “that amplifies the pressure of problems by dramatizing them” and, 3. a network suitable for efficient communication of “issues and opinions” (Correia, 2012:103-104). New public spheres [i.e. public sphere spaces] of communication are generated when “the role of news mediator”—which is typically facilitated by traditional news organisations—is bypassed by audiences preferring to turn to blogs [and other such social media tools like Twitter] for their news needs (Bailey & Marques, 2012:397). One such “new public sphere” that is gradually emerging, is the networked public sphere (Benkler, 2006:10,212). Benkler (2006:212) describes the distinguishing aspect of the networked public sphere as its “network architecture and the cost of becoming a speaker”, thereby allowing “individuals, acting alone or with others, to be active participants in the public sphere as opposed to its passive readers, listeners, or viewers”. This sheds light on a significant difference between notions of the classic Habermasian public sphere and notions of the networked public sphere. Briefly this includes

- The networked aspect of the networked public sphere—it is because of its networked online/digital architecture that participant involvement is made easier (i.e. less costly) than under a traditional mass media context. This is so because the (digital online) network is a “distributed architecture with multidirectional connections among all nodes in the networked information environment” and not “unidirectional” as with traditional mass media (Benkler, 2006:212).
- Individuals “acting alone” are thus able to participate in debates, thereby becoming “active participants in the public sphere”—as such, these participants are no longer “passive readers, listeners or viewers” (Benkler, 2006: 212). When communicating within the networked architecture that Benkler describes [and which is so characteristic of Twitter network architecture], there exists an enhanced ability to actively participate

(in multidirectional fashion). For this reason, the classic public sphere is giving rise to a networked public sphere that facilitates multidirectional participation.

In part, this study seeks to contribute to a more nuanced understanding of news organisations' use of Twitter in the networked public sphere. Consequently, one of the anticipated outcomes of such a nuanced understanding, might be the easing of the tension that news organisations in particular, may be feeling towards social media like Twitter.

### **2.5.2 Social networks as a form of the public sphere: the networked public sphere**

Social network sites are theorised as “a form of the public sphere”—a space where users “are mediated publics, and conversely, social networking sites provide environments where people can gather publicly through mediating technology” (Hermida *et al.*, 2012). In such a space, these networked audiences comprise many disparate social relationships, such that “users acknowledge concurrent multiple audiences” (Marwick & boyd, 2011: 129–130). Marwick and boyd (2011:129–130) explain that social contexts on Twitter co-exist as part of a network, where “[i]ndividuals learn how to manage tensions between public and private, insider and outsider, and frontstage and backstage performances”. However, Bonilla and Rosa (2015:6) advise against journalists (and others) representing Twitter as an “unproblematized” public sphere space where there is no consideration for its user-engagement intricacies. Note: the preceding use of the term “public sphere space” implies that more than one such space exists. Seemingly, audiences' engagement on social network public sphere spaces might stem from their apparent deliberate bypassing of traditional news organisations. One possible reason why this might be so, is that media power and criticisms thereof result in controversial issues being debated in the public sphere (Correia, 2012:113). Correia (2012:113) says that “the agenda, the frames, and the editorial guidelines of the mass media are being ... criticized, discussed, and challenged in online discussions, on Facebook pages, social media, and blogs, and ... collaborative news media”. Correia (2012:103-104) contends that for a public sphere space to be considered suitably functional, “the existence of a constellation of communicative spaces” is a prerequisite because these permit “the circulation of information, ideas, debates, and [ultimately] ... the formation of public opinion”. Moreover, Bailey and Marques (2012:398) argue that—when building upon Habermas' (1989) original public sphere theory—the creation of alternative public spheres leads to increased democratic participation. As such, the networked public sphere is only one such public sphere space. Arguably, in theory many public sphere spaces exist, each being uniquely

theorised and constituted, under different contexts and conditions. In fact, some scholars argue that multiple public spheres even exist within one particular context or social media platform. This has been demonstrated in a study of the Chinese social media platform, Sina Weibo (Rauchfleisch & Schäfer, 2015:139). Rauchfleisch and Schäfer (2015:139) contend that, even on a single social media tool such as Sina Weibo, multiple public spheres exist.

As far as new media spaces (on social networks) are concerned, Daniels (2016b:176) reveals that “given the evidence of hashtag activism”, “new media is becoming a more inclusive and expansive space and is contributing to a strengthened public sphere”. Bosch (2013:127) believes that as more people use social media, the internet “is increasingly becoming a potential space for the creation of a networked public sphere, facilitating social interactions and information sharing”. Correia (2012:114) contends that “online journalism is compatible with a plurality of public spheres, crossed by a plurality of rationalities, strategies, and interests”. Thus one can see that Twitter has evolved into “an important part of the networked public sphere” because this is an online space where “politicians, journalists, political strategists and citizens” negotiate public issues (Ausserhofer & Maireder, 2013:291). Russel (2016:158) describes Benkler’s networked public sphere as “an ecosystem of communication channels that together create a space where citizen voices and minority points of view are made visible, and where stories and sources gain prominence based on relevance and credibility rather than their connection to the powers that be”. Russell (2016:158) says such a networked public sphere space is “less dominated by large media entities, less subject to government control, and more open to wider participation than the mass mediated public sphere, which replaced the salon and town-hall discussions that first fuelled Jürgen Habermas’s notion of an ideal public sphere”. Ausserhofer and Maireder (2013:291) extend their description of the networked public sphere, such that they term it a “national public Twittersphere”, implying that the Twitter network might be considered a national networked public sphere. This alternative phrasing of the term networked public sphere offers a broader, richer meaning of the networked public sphere and its relationship with Twitter (Ausserhofer & Maireder, 2013:308).

Thus, in summary of the preceding discussion, note that the sequence in which the original concept of the public sphere has evolved started with a progression from Habermas’s classic public sphere, which then moved towards the notion of a mass mediated form of the public sphere, and has continued to evolve into the emerging notion of the networked public sphere. The networked public sphere is characteristic for giving prominence to issues of credibility and relevance, regardless of the power (or not) of the voice behind the issue being placed on the agenda for public debate.

On a concluding point of note, an interesting South African perspective on public sphere spaces is suggested by Bosch (2013). Bosch (2013:119) argues that youth in South Africa engage “alternative forms of political subactivism that work at the margins of the dominant public sphere”. This brings to the fore the notion of a space for public engagement that lies on the periphery of the dominant public sphere. Social media, inclusive of Twitter, are thus seen to be such peripheral public sphere spaces. At times however, we see an inverting of the two taking place—the dominant public sphere space becomes secondary (and thus lies on the periphery), whilst the peripheral spaces become the new dominant public sphere space (Bosch, 2016: 171). As for the social media users who engage in these spaces, Bosch (2013: 123) asserts that whilst the youth are trusting of mainstream news they nevertheless tend towards the reliance upon social media for news. Bosch (2017:230) says that, for the youth who mostly do not consume mainstream news media,

... Twitter offers an element of immediacy, existing in parallel with more traditional news platforms, and giving them a vehicle for political participation. ... The youth who participate in these online conversations congregate in the online space and come together to form a networked public sphere.

## 2.6 #FeesMustFall

Peterson, Radebe and Mohanty (2016:1) said that over and above the protests on campuses, “...activists utilized Twitter to mobilize and communicate with each other”. For this reason, when “the hashtag #FeesMustFall began trending on Twitter” the protests quickly rose to prominence drawing lots of national attention (Peterson *et al.*, 2016:1). Certain scholars conclude that the “emergence and functioning” of the #FeesMustFall protests was mostly due to social media’s role therein (Hodes, 2017:140). Recent research looking at popular protest movements such as the Occupy movement and the Egyptian Revolution of 2011 underscores the central role played by social media (Castells, 2015), although there are also counter-arguments from cyber sceptics.

About #FeesMustFall, Patricios and Goldstuck (2017: 5) believe that

the role of social media in the public debate ... moved from the periphery to the heart of activism, symbolised by the fact that one of the most high-profile campaigns of the [2016] year, #FeesMustFall, was partly defined by its Twitter hashtag ... [emphasising] the core role played by social media in the public life of South Africa.

The use of the #FeesMustFall hashtag served well to promote activists' protest-related calls to action (Daniels, 2016b:176). The #FeesMustFall protests is a South African example supporting the claims that we are witnessing the “global growth of so-called ‘Twitter activism’ and wide-scale online political participation” (Bosch, 2016:160). At the peak of the protests, Twitter was used as an “organising tool” and as a “space for national debate” around various issues related to the protests (Bosch, 2016). Referring to the Twitter platform in particular, Postill (cited in Bosch, 2016:168-169) contends that news media coverage can be quite intense but short-lived.

Breindl (2016:261) states that during protests, the activists are news producers and, as such, these activists “hold a central position in the networked public sphere, as brokers or bridges between decision-makers and citizens, [similar] to the position upheld by the media in democracies”. Therefore, the internet and Twitter assumes “a central function in allowing activists to directly interact with both citizens and decision-makers” (Breindl, 2016:261).

Referring to news organisations' #FeesMustFall tweet-activity, Bosch (2016:168–169) describes her findings by mentioning (and ranking) “the most retweeted” news organisations. As such, Bosch (2016:168–169) uses textual descriptions to describe findings obtained from the data that was analysed—for example:

The most retweeted user was Eye Witness News, with the E-News channel falling in 6th position, and the Daily Vox and News24 at 9th and 10th. ...  
E-News channel still features as number 1, ...

Bosch's descriptive textual approach for describing findings that was observed in analysed data, offers clear methodological guidance to the author of this study. For this study, the author will make use of textual descriptions to accompany the visual representations generated in *Tableau*<sup>®</sup>.

Remaining with the issue of methodology, it is noted that, according to the South African literature that was reviewed, there were slight discrepancies in some statistics between Bosch (2016:160), Daniels (2016b:184) and Maggs (2015). In particular, there were variations in how many tweets were indeed generated in the last two weeks of October 2015. The statistic varied between 1.3 million tweets (Bosch, 2016:160), “1,490,377 tweets...” (Daniels, 2016b:184) and an estimated 1½ million (Maggs, 2015). Although marginal, discrepancies like these demonstrate that current research of Twitter data-sets does not yet involve the use of optimally refined, exact research methodologies. Furthermore, in Daniels' (2016b:184) study, it was noted that the author did not provide a breakdown or classification of the various types of “media-based” Twitter accounts. Similarly, no mention was



made of international media-based (i.e. news) organisations that would have featured in the data-set and how these were dealt with. There was also no mention of multiple Twitter accounts that could be attributed to a single news organisation. As a final note—in both Daniels’ and Bosch’s studies—no details were offered surrounding the computer-assistive component that was undertaken in order to process the large data-set of tweets studied in their research.

The author of this study maintains that methodological challenges to the way in which Twitter data-sets might be accessed and researched, point to a growing need to continue to pursue a more inclusive and well-documented set of tested methodologies which can be more uniformly applied, particularly when conducting Twitter hashtag research for journalism studies. With well-documented research methodologies to draw upon, these are likely to foster increased interest (by journalism scholars) in the study of news events where Twitter-hashtags are the primary data-focus for such research.

In sum, from the literature reviewed, none of the studies recognised the complementary nature of the media’s participation (i.e. public engagement) in networked public sphere. The author of this study contends that, from a functionalist media theory perspective, news organisations certainly contribute an added dimension to Twitter debates. For these reasons, news organisations’ involvement in the networked public sphere needs to be far more holistically researched and understood.

The next chapter deals with a discussion of the theoretical framework underpinning the arguments advanced in this thesis.

## **CHAPTER 3: Theoretical framework—functionalism, information society and the networked public sphere combined into a hybrid theoretical model**

### **3.1 Introduction**

This chapter discusses the theoretical framework that informed the manner in which Twitter-based phenomena was investigated for this study. Each of the three theories will be discussed: first functionalist theory of the media, then information society theory, followed by networked public sphere theory. The chapter concludes with a discussion that integrates these into a hybridised theoretical model that was determined to be the most ideal theoretical framework to inform and support the academic analysis of the phenomena that was investigated in this study.

### **3.2 Theoretical concepts to support the hybrid theoretical model devised for this study**

In most cases, media theory attempts to model nuances of a variety of relationships to their dependencies upon media content and media audiences (Fourie, 2007:116). Referring to these media theory models, Fourie (2007:116) identifies three theoretical paradigms which are of relevance to this thesis: positivistic functionalism, the information society (which describes certain concepts relevant to new media), and the critical public sphere (i.e. the networked public sphere in particular). When dealing with theories of contemporary media in particular, McQuail (2010:6) asks an important question, namely, should “‘new media’ require new and different theory from that applying to ‘mass communication’”? The author of this study thinks so. Therefore, for this study, a hybrid theoretical model needed to be conceptualised, described and represented in a basic descriptive and diagrammatic form. This hybrid theoretical model incorporates concepts of media functionalism, information society theory and the networked public sphere. Individual theories, as well as the combining of these individual theories, is done with the intention of providing researchers with perspectives for “*interpreting patterns* of dependency among individuals, the media [i.e. news organisations] and society” (DeFleur & Ball-Rokeach, 1989:310, own emphasis). Looking at the anatomy of theory, McQuail (2010:5) describes two terms: concepts and models (within the context of mass communication theory). A concept “is a core term in a theory that summarizes an important aspect of the problem under study [which] can be used in collecting and interpreting evidence” (McQuail, 2010:5). A model is a “selective representation in verbal or diagrammatic form of some aspect of the dynamic process of mass communication” (McQuail, 2010:5).

Next, a discussion of each of the three theories is provided, beginning with functionalist theory of the media.

### 3.3 Functionalist theory of the media

Durkheim and Parsons theorised the functionalist theoretical perspective (Fourie, 2004:240)—also called “functionalism” (McQuail, 2010:98). The functionalist paradigm facilitates a role in the “framing and answering [of] research questions about the media” (McQuail, 2010:98). McQuail (2010:98) maintains that functionalism “offers a language for discussing the relations between mass media and society and a set of concepts that have proved hard to replace”. Functionalism regards the media “as one of the instruments in society that should contribute to the harmonious and cohesive functioning of society” (Fourie, 2004:240). Functionalism is primarily interested in “what the functions of the media are and what their role in society should be” (Fourie, 2004:264). DeFleur and Ball-Rokeach (1989:302) say that the functionalist approach is primarily concerned with achieving and maintaining some type of societal stability. The functionalist paradigm thus places high emphasis on the “necessity for cooperation between the parts, based upon their mutual recognition that the survival and welfare of one part is dependent upon the survival and welfare of the other parts” (DeFleur & Ball-Rokeach, 1989:302).

As such, there are implications when there is a lack of understanding surrounding news organisations’ functions and roles. News organisations stand to isolate themselves from the society that they ought to be serving, leading to the impact and value of the news organisation becoming increasingly less relevant to society. Consequently, the survival of news organisations might be threatened. Similarly, an ignorant society that chooses to ignore authentic journalistically-sound content stands to endanger its own societal welfare. After all, the media system in a society functions as a series of “powerful socialisation instruments ... [functioning] towards integration, harmony and cohesion, whether it is through the information, entertainment and/or education they provide” (Fourie, 2004:265). Moreover, a notable proposition of functionalist theory of the media is that the media (being an “institution of society”) is necessary for “adaption and change” in that it facilitates the management of tension (McQuail, 2010:100).

However, functionalism is widely criticised because it “overemphasises consensus between groups in society, thus absencing conflict from social relations (O’Sullivan *et al* in Fourie, 2004:265). Functionalism is also criticised for its apparent failure to provide an adequate account of social change and transformation (O’Sullivan *et al* in Fourie, 2004:266). The “fundamental and irremediable

weakness of functionalism” or “unintended harmful effects” of functionalism lies with its tendency towards “dysfunction” or “dysfunctions” (McQuail, 2010:100), which means that functionalism might (under certain conditions) lead to unforeseen negative consequences.

Additional objections to functionalism include the fact that “what might function as information for one, might be disinformation to others” (Fourie, 2004: 266). Also, functionalism “neglects to provide for feedback and the fact that feedback modifies both the message and the context” (Fourie, 2004:266). Lastly, functionalism does not “acknowledge the importance of context—social, political and cultural—as an influence on all stages of the communication processes” (Watson & Hill in Fourie, 2004:266). Nonetheless, despite such a criticism, functionalism is still of value as a theoretical framework to this study. These reasons are discussed next.

As discussed in section 1.5.1 of Chapter 1, be reminded of McQuail’s (2010:98–99) foundational “set of basic ideas” that constitute the 5 main functions/tasks of the media in society. These ideas offer valuable functions of the media and constitute one of the reasons why a functionalist framework fits this study so well. In addition, certain normative functionalist theories of the press (Fourie, 2004:267) require consideration for this study too, because they serve to describe how news organisations should ideally be operating in similar scenarios that closely resemble the conditions of the case study being explored in this study. Normative functionalist theories of the press address certain press freedoms or restrictions on the news industry and how these might impact the functions of the press (i.e. news media) in society (Fourie, 2004:267). In this regard, a particular normative functionalist theory that is closely relevant to this discussion, is that of “democratic-participant theory”, which emphasises the importance of: “the multiplicity/diversity of media”, “the reciprocal role of communicator and recipient”, “horizontal communication” and “interaction and involvement” (Fourie, 2004:267). To a large extent, Twitter as social media tool (i.e. micro-blog), facilitates a mode of functionality that aids democratic-participant theory.

Lastly, Nordenstreng, Christians, Glasser and McQuail (in Fourie, 2004:275-276) advance the following additional normative roles of media: “collaborative ... [the media] to collaborate towards development ideals, nation building and national interest; surveillance ... [where] the media plays an adverse role, acts as a watchdog and agenda-setter; ... facilitative ... [where] the media seeks to create and sustain public debate; ... [and] critical/dialectical ... [where] the media’s role is to constitute public debate about, not within, the prevailing political order”. These normative functionalist roles might serve well to assist with understanding the structure of content for a series of tweets that were published by news organisations during #FeesMustFall. For example, during the data analysis phase

of this study, an assessment can be made as to whether a collaborative and/or a facilitative intention was embedded in the structure of the content of a set of tweets.

### 3.4 Information society theory

McQuail (2010: 560) defines the information society as:

A term widely used to describe contemporary society in terms of what is thought to be its most central driving force or source of productive power, *namely information of all kinds*. The justification for this assumption derives from the seeming *dependence of much of modern life, materially as well as culturally, on the production, handling and application of information and on the operation of complex networks of communication*. The information and communication technology sector appears to have become the chief source of wealth in more economically advanced societies (own emphasis).

Additionally, it is noted that some scholars like Van Dijk and Castells use the term “network society” instead of “information society”(McQuail, 2010:105). Van Dijk (in McQuail, 2010:105) holds to this terminology because, as alluded to in Chapter 1, society is migrating away from face to face communication towards engaging in an alternate mode of indirect communication using social media networks. This suggests that there is a relationship between the information in, and the networked nature of, society. Moreover, there is evidence of a “cultural dimension” to the network/information society—as such, the existence of an “information culture” now permeates much of everyday life (McQuail, 2010:106). As such, Webster (2014:5) says that society’s “knowledge of what is happening in the world” comes from the “centrality of mediation” facilitated by news services. By inference then, society’s accurate knowledge of the world depends on the quality of information being mediated by these news services. Melody (in McQuail, 2010:104) describes information societies as:

[societies] that have become ‘dependent upon complex electronic information networks ... [and as such, these (new) ‘information societies’] allocate a major portion of their resources to information and communication activities’.

A main proposition of information society theory is that “society is characterized by increasing interconnectivity” (McQuail, 2010:107). This interconnectivity brings with it a considerable amount

of “dependence on others” (McQuail, 2010:105). This would suggest that news organisations are unavoidably dependent upon an extremely interconnected society, of which they are but merely a part.

Van Dijk (2005:240) suggests that modern society is continually evolving towards a “network society” that is “increasingly organizing its relationships in media networks which are gradually replacing or complementing the social networks of face to face communication”. Fourie (2007:154), in his explanation of the information society paradigm, places emphasis on the role of new media and information and communications technologies (ICT’s) in society. In the information society paradigm, “policy related to new media and ICTs” is a decided influencing variable (Fourie, 2007:154). Therefore, when applied to the context of this study, news organisations’ Twitter-policies are important variables in a new media environment. This is particularly so for new media’s ability to increase in the “production and flow of information” of various types within the information society (Fourie, 2007:154). McQuail (2010:559) defines information as

the content (messages) of all meaningful communication is information. ...  
[M]ore narrowly and precisely, information may be equated with  
communicated ‘data’ that do (or can) enable discriminations to be made in  
some domain of reality and thus ‘reduce uncertainty’ for the receiver.

Webster (2014:2) asserts that all scholars acknowledge “that there is something special about information”, which is “reflected in a shift [away] from computer communications technologies towards interest in social media, where commentary moves from concern with what technology is doing to society towards what people can do with technologies.” Thus, “it is people who are the key players in the Information Society” (Webster, 2014:4). As such, Webster’s (2014:4) scholarly interest has to do with a “general concern for information” with a special emphasis “on different interpretations of the import of information”. Consequently, one of the aims of this study is to determine just how meaningful (or not) news organisations’ information (in the form of tweets published to Twitter) truly was during the #FeesMustFall event.

Further, notable characteristics of new media include its “sociability” which facilitates significantly more social contact between users; its “interactivity” which allows more engagement between the sender (i.e. communicator) and receiver (i.e. users/recipients); and its “autonomy” which enables significant ability for users to control the content of messages (Fourie, 2004:252).

Because of the significant volume of information being transferred (i.e. “traded”) within the network society, the notion of the existence of an information economy is also of relevance to the discussion. Melody (in Webster, 2014:59) details the relationship between information and the information economy with the following description:

Most information goods and services are used by industry rather than consumers ... We need to ... recognise that information ... is fundamental to almost all productive activity, in a modern economy. The changing role of information lies behind the restructuring of all industries and the creation of the global information economy.

As previously stated in section 1.5.1 of Chapter 1, note however, that “the ‘information economy’ is much larger than the mass media on their own, and [in essence] the primary information technologies involved are not those of [the media]” (McQuail, 2010:106). In the information economy large corporations [which includes news organisations] “will no longer be, self-contained and self-sufficient” (McQuail, 2010:175). Therefore, these large organisations and news organisations might be forced to adapt their operations and policies towards a “dynamic and strategically planned network of self-programmed, self-directed units based on decentralization, participation, and coordination” (McQuail, 2010:178).

### **3.5 The networked public sphere**

The classical public, according to Habermas, began in the Eighteenth-century (Gripsrud, Moe, Molander & Murdock, 2010: xiv). Referring to Habermas’ book *Structural transformation of the public sphere* (Habermas, 1989), Friedland, Hove and Rojas (2006:6) observe the following aspect related to the evolution or gradual progression of classical public sphere:

[T]he classical concept of the public sphere is rooted in a framework of an emerging bourgeois state and economy, as well as in specific structures of civil society. Classical public sphere theory captures a particular dynamic of history, a point where reasoned discussion of politics is both possible and normative among certain groups.

However, the contemporary present-day dynamic is such that notions of Habermas’ classical public sphere no longer facilitates “reasoned discussion of politics” (Friedland *et al.*, 2006:6). In other

words, discussion of politics (within a classical public sphere paradigm) no longer primarily happens in Eighteenth-century salons and similar physical spaces. Instead, seemingly the reasoned discussion of politics is now happening within the context of an overarching information society mode of communication-exchange, which to a large extent occurs on social media platforms. As such, this has given rise to newer, perhaps more illuminated and accessible modes of reasoned political debate.

Citing Benkler, Rasmussen (2006:10, 212) says, “Benkler’s study from 2006 clearly stands out as the most ambitious attempt to synthesise the idea of a rational and enlightened public sphere with the theory of social networks”. The author of this study believes that Benkler’s ambitious synthesis does indeed stand out. As such, Benkler has been a credible source for obtaining an authoritative synthesis of the overarching notion of the networked public sphere.

The networked public sphere is theorised as a gradually emerging “new public sphere” (Benkler, 2006:10, 212). Within the context of a democratic society, Benkler (2006:10) asserts that a

... major implication of the networked *information economy* is the shift it enables from the mass-mediated public sphere to a networked public sphere. This shift is also based on the increasing freedom *individuals enjoy to participate in creating information and knowledge*, and the possibilities it presents for *a new public sphere to emerge* alongside the commercial, mass-media markets (own emphasis).

Remember though, that “the ‘information economy’ is much larger than the mass media on their own” (McQuail, 2010:106). Furthermore, what is striking about Benkler’s notion of the networked public sphere is its capacity to facilitate—particularly for individuals as opposed to news organisations only—the participation in, and creation of information and knowledge. This implies active participation by individuals in the networked public sphere, such that they would not be mere passive spectators encountered in the (classic Habermasian) “hub-and-spoke” type architecture of the public sphere with its “unidirectional links” which are so characteristic of the traditional mass media (Benkler, 2006:212). Moreover, on the premise of Benkler’s assertions, note that the networked public sphere is to be regarded as an emerging new public sphere space, which means that personal interaction and access to a far larger portion of the South African public is made possible.

In one particular study, Benkler, Roberts, Faris, Solow-Niederman and Etling’s (2015:594) investigation revealed that, for particular issues of significant public interest, “an increased public awareness” was achieved because it originated in the networked public sphere. As such, the



“networked public sphere enabled a dynamic public discourse that involved both individual and organizational participants and offered substantive discussion of complex issues” (Benkler *et al.*, 2015:594). Thus, in the pursuit of an understanding of what some of the universally applicable notions of the networked public sphere are, it would seem that the enabling of “a dynamic public discourse” (Benkler *et al.*, 2015:594) involving both the individual as well as organisational participants, is a decided democratic benefit to be gained from participating in the networked public sphere. In questioning the meaning of “a dynamic public discourse”, an explanation is encountered in a study by Halpern (2013:ii, own emphasis), which asserts that social media “triggers *civic engagement* through news consumption and political discussion”. Moreover, it is a unique type of public communication (i.e. public discourse) which happens exclusively on the networked public sphere. Halpern’s (2013:iii) study found that “the formation of a networked public sphere is strongly affected by the type of audiences (contacts) that users have in their networks”. This would suggest that, if social media triggers civic engagement through news consumption, then the users (of social media/Twitter) would need to engage with the social media/Twitter accounts of news organisations too. This means that the formation of a networked public sphere is strongly contingent upon audiences/users not only engaging with other individual users, but also with news-organisations’ too. This also highlights an inevitable dependency that comes into existence between individuals and news organisations (DeFleur & Ball-Rokeach, 1989:310).

Because social interaction and information sharing (i.e. public discourse) leads to a potential space “for the creation of a networked public sphere” (Bosch, 2013:127), this ought to be a primary role that news organisations seek to fulfil within the networked public sphere. After all, one must remain mindful of the fact that “content is an important influence” (Deuze, 1998, para.1) in setting the public agenda and debate taking place in the networked public sphere—something news organisations ought to be doing all the time. However, when it comes to content, audiences want freedom of choice as well as opportunity to make contributions to content and offer opinions on it too (Harper, 2010:1). Hermida *et al.* (2012:817) have determined that “networked public spheres are becoming spaces for audiences to share, discuss and contribute to the news”. Consequently, the link between the importance of content as an influencing factor in public discourse taking place in the networked public sphere and news organisations that are best-poised to produce such content, ought to be clearly evident. For this reason it was necessary to formulate the hybridised theoretical model to support the analysis of the phenomena being investigated in this study.

Next, the discussion considers the responsibilities of the network providers of the various social media platforms. Beckett (2012:11) says that network providers “have responsibilities as any utilities company might”. However, network providers of social media platforms have an additional set of responsibilities that extend well-beyond mere quality of service (Beckett, 2012:11). In order to foster and maintain a healthy networked public sphere, Beckett (2012:11) lists three categories of responsibilities that are expected of network providers:

- A duty to provide open, accessible networks that respect privacy and prevent harm and that allow for free and informed societies.
- Corporate responsibility to foster healthy societies by direct support for and collaboration with the creation of humanitarian information networks.
- A (self-interested) responsibility to increase media literacies and to create values for the citizen in networks.

Thus, for example, it would seem essential that Twitter Incorporated run its business operations in close alignment with these responsibilities. Not doing so could impact the authenticity and integrity of the constituted networked public sphere/s that exist on such a network. Beckett (2012:11) issues cautionary words of warning by stating that “the condition of the network can have an ethical and political as well as a material influence on the nature of the communications that it carries”.

It is generally accepted that the internet “allows news to be distributed widely” (Beckett, 2012:17). Regardless of this fact, however, if news organisations chose not to engage the public on the networked public sphere, they would be “failing to recognise the reality of the networked public sphere” (Beckett, 2012:17). Therefore, for this study, the combining of networked public sphere theory with functionalist theory of the media, served well to more holistically inform the *raison d'être* for news organisations—something which theoretical notions of the networked public sphere on its own does not do. Similarly, functionalist theory of the media (on its own) is criticised for its apparent failure to provide an adequate account of social change and transformation (O’Sullivan *et al* in Fourie, 2004:266). Consequently, without the hybrid theoretical model that was developed for this study, there would be a significantly weaker theoretical foundation to, for example, inform necessary policy changes needed to effect social change and transformation that news organisations are functionally expected to facilitate within society.

To conclude, the underlying rationale for the theoretical approach being taken in this study, is to bring meaningful improvement to the description of the manner in which news organisations engage the public on the networked public sphere. Beckett (2012:35) makes it clear that the key to future media agency will be contingent upon “the ability of mainstream media [i.e. which no doubt includes news organisations too] to adapt to its new role in the networked public sphere”.

The next section is a discussion of the hybrid theoretical model that was formulated to inform and support the academic analysis of the phenomena that was investigated in this study.

### **3.6 A hybrid theoretical model for this study: combining functionalism, information society and network public sphere theories**

This hybrid theoretical model incorporates concepts of media functionalism, information society theory and the networked public sphere. This was partly done because—as previously mentioned in section 1.5.1 of Chapter 1—Fourie (2004: 231) has stated that, in media studies “[we] have different theories about the same thing ... [but that] each new theory may however, add and/or emphasise a different aspect of the phenomenon and as such contributes to our better understanding of the phenomenon.” McQuail (2010:5) says “a theory is a general proposition ... that seeks either to explain or predict the relation” between observed phenomena. The primary objective of this hybrid theoretical model is to facilitate a significantly better understanding of the different aspects surrounding the phenomena that was investigated in this study. This hybrid theoretical model constitutes a rich collective set of general propositions that assisted the researcher with the explanation of relations between—and functions of—the phenomena that was investigated in this study.

Thus, the hybrid theoretical model served to illuminate as many nuances in the relationships between the media and society, the media and culture, such that dependencies upon media content and media audiences (Fourie, 2007:116) (and other phenomena) will be made identifiable for further discussion.

The next sub-section discusses two diagrammatic representations of the hybrid theoretical model. The first model (Figure 1) is a depiction of the case study view which is most applicable to the research context and social phenomena that was investigated for this study. The second model (Figure 2) is a depiction of a larger, applied macro-level perspective covering some of the notions that have emanated from discussions in this study. As such, this applied macro-level perspective depicts scenarios that might be applied to research contexts that extend beyond the scope of this particular study. However, because this study also serves to promote, *inter alia*, further social-scientific research on the broader subject of inquiry, the applied macro-level perspective (Table 2) offers a rich set of

additional insights relevant to the principles of this hybrid theoretical model. With the scholarly objective of contributing to the overall knowledge-base of journalism and media studies, it is hoped that the principles being advanced in this study might be adopted in future research projects.

### 3.6.1 Diagrammatic representation of the hybrid theoretical model (case study view)

The key in Figure 1 (below) depicts four components that constitute essential parts of the hybrid theoretical model. These will be discussed next.

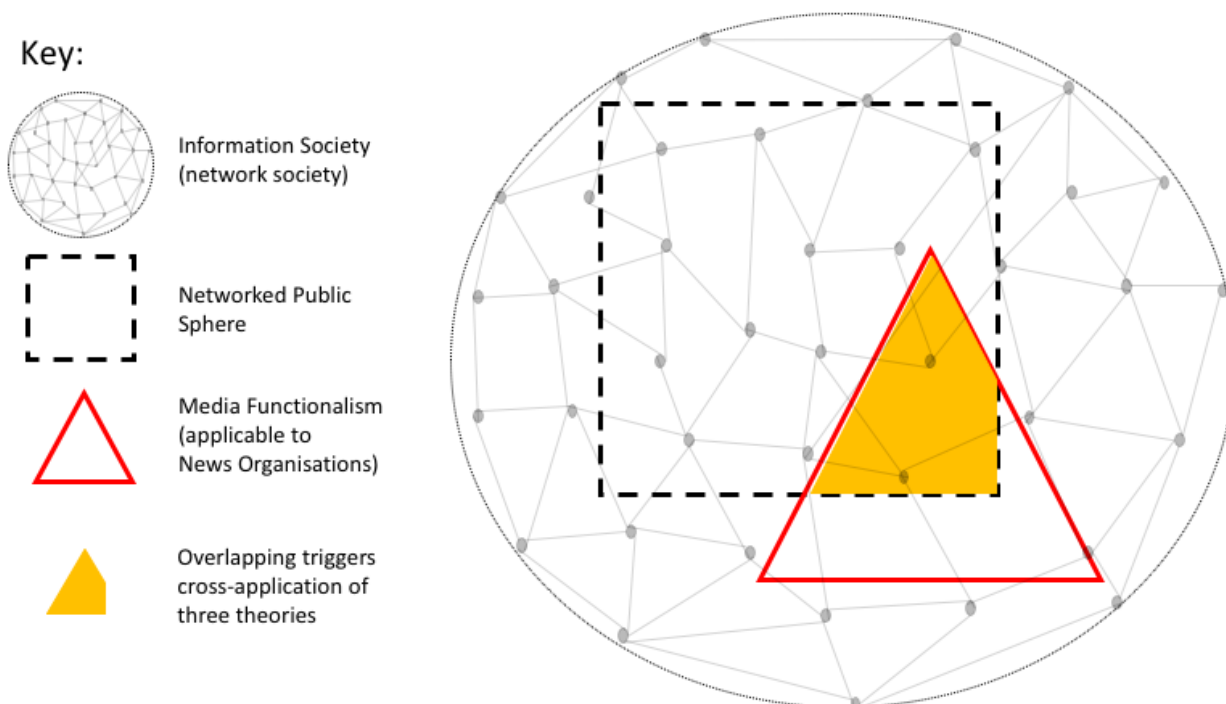


Figure 1—Hybrid theoretical model (case study view)

**The information society (circle)**—this represents the broad information society framework within which all the other components of the model exist. Each dot represents an individual/person who, for example, could be a user of some or other social media platform like Twitter. The information society with its distributive network architecture, is “characterized by increasing interconnectivity” (McQuail, 2010:107). As such, this distributed network architecture comprises multidirectional connections among all nodes (i.e. users) in the networked information environment. It is in this information society realm that society is organising its relationships in media networks that are either replacing or complementing face to face communication (Van Dijk in McQuail, 2010:105). In the information society, there is an “information culture” that now permeates much of everyday life (McQuail,

2010:106). The interconnectivity is depicted by a series of interconnected dots, signifying the considerable amount of dependence that exists between people (i.e. individuals/users). The information being transmitted in the information society is facilitated by means of ICTs. Castells' (2010) notion of the network society is evident in this depiction. Interactivity between sender and receiver, as well as content autonomy (Fourie, 2004:252) are further characteristics of the information society. In the information society, people are the key players (Webster, 2014:4). As such, this depiction represents connectivity between people and is not a representation of ICT technology or ICT infrastructure. It is within the information society that the "information economy" (Melody in Webster, 2014:59) exists. It is within the information economy that an exponential increase in production and flow of information is taking place (Van Cuilenburg in McQuail, 2010:104). Within the information society, the information economy is much larger than the mass media on their own (McQuail, 2010:106), and the primary ICTs that exist within the information society are not those of news organisations (i.e. news organisations do not own them).

**The networked public sphere (square)**—the networked public sphere exists within the broader (i.e. wider) information society. The author of this study strongly supports Benkler's (2006:212–272) idea of the networked public sphere being a rational and enlightened public sphere. Arguably, one might also contend that many debates on social media like Twitter are totally irrational. For this reason, the news media can play its functionalist role of facilitating rational debates by providing meaningful content embedded in its tweets. For this reason, the networked public sphere may well be regarded as an emerging "new public sphere" (Benkler, 2006:10,212) which, amongst others, facilitates information economy activities. The networked public sphere is a space where individuals/users can participate in creating information and knowledge (Benkler, 2006:10). Participation of this kind implies active participation by these individuals/users, such that they are not the same as your typical passive person/individual (i.e. spectator) that would otherwise be encountered in the (classic Habermasian) public sphere (Benkler, 2006:212). This is a space "for audiences to share, discuss and contribute to the news" (Hermida *et al.*, 2012:817). The networked public sphere is emerging alongside commercial mass-media markets (Hermida *et al.*, 2012:817). Issues that originate in the networked public sphere achieve "an increased public awareness" (Benkler *et al.*, 2015:594). Individuals in the networked public sphere not only engage with other users, but they might well choose to engage with news-organisations too. As such, a necessary dependency exists—and may well be nurtured on an ongoing basis—between individuals and news organisations (DeFleur & Ball-Rokeach, 1989:310).

**Media functionalism (i.e. news organisations) (triangle)**—This is a space where both function and form are combined in its symbolic representation (i.e. the triangle depicts a collective set of news organisations). The red triangle represents news organisations and the set of media functions and roles (Fourie, 2004:264) that they ideally ought to offer to society when engaging in the networked public sphere. News organisations are expected to play their part in achieving and maintaining some type of societal stability (DeFleur & Ball-Rokeach, 1989:302). News organisations are expected to cooperate with other parts, knowing that “the survival and welfare of one part is dependent upon the survival and welfare of the other parts” (DeFleur & Ball-Rokeach, 1989:302). In other words, when an individual news organisation engages individuals/users (i.e. the public) on social media like Twitter, it has a functional duty to cooperate with the other “parts”—this implies a necessary cooperation that is to be pledged to other news organisations too. News organisations are “institutions of society” (McQuail, 2010:100), thus when they engage audiences (i.e. society in the form of individuals/users) on the networked public sphere, they do so with the specific purpose of managing social tensions, which when done, might lead to later “adaption and change” (McQuail, 2010:100) in society. The inherent weaknesses of media functionalism (i.e. “dysfunctions”) (McQuail, 2010:100) are compensated for, when coupled/combined with the supportive (i.e. complementary) elements gained from the other components of this hybrid theoretical model. For example, the criticism (i.e. dysfunction) that presumes that consensus is achieved and conflict is non-existent with media functionalism, is countered by the two-way interactivity that is encouraged when news organisations engage audiences in, specifically, the networked public sphere. As such certain criticisms of media functionalism are negated in this model. The criticism that media functionalism “[n]eglects to provide for feedback and the fact that feedback modifies both the message and the context” (Fourie, 2004:266) is nullified in a social media (i.e. Twitter) environment where interaction is decidedly a two-way communication medium. Similarly, the dysfunction which states that the media erroneously serves different functions to different people or groups in a society, is also negated. Therefore, the criticism that “... information for one, might be disinformation to others” (Fourie, 2004: 266) is counter-balanced by the interconnectivity of the networked public sphere which promotes—and possibly even encourages—the creation of information and knowledge by users/individual who participate in sharing, discussion and contribution to the news featured by news organisations. Additionally, in terms of normative theories of the press and the specific discussion surrounding democratic-participant theory, the multiplicity/diversity of media, the reciprocal role of communicator and recipient, horizontal communication, and interaction and involvement, will all be well-fostered under the combined set of conditions proposed in this hybrid theoretical model.

**Overlapping (yellow) intersection-point of each theory (the trigger area)**—The intersection-point serves as the trigger for when characteristic attributes from each theory may be cross-applied to the phenomena that was investigated for this study. For example, it is in this overlapping space that news organisations are not “self-contained and self-sufficient” (McQuail, 2010:175). Moreover, where the overlap occurs, civic engagement for example, is triggered through news consumption and political discussion (Halpern, 2013:ii). Civic engagement of this kind is a unique form of public communication (i.e. public debate) which only occurs in the networked public sphere (Halpern, 2013:ii). When news organisations intentionally (or inadvertently) engage the public in this overlapping space, they might need to adapt their internal operations and policies such that these might constitute a more “dynamic and strategically planned network of self-programmed, self-directed units based on decentralization, participation, and coordination” (McQuail, 2010:178). Under certain conditions this overlapping space—within the networked public sphere—might well foster a far more consistent and dynamic public discourse on complex issues involving substantive discussion by both individual and organisational participants (Benkler *et al.*, 2015:594). Note too, that the overlapping zone represents a form of interactive communication that can exist between individuals/users and news organisations. A key consideration (which will be expanded upon in Chapter 6) is to address the question of meaningful (quality) journalistic-type information and audience engagement that takes place inside this (overlapping) space. The secondary research questions in this study dealing with exploring the nature of organisations’ tweets, served well to offer a solid springboard upon which the author of this study was able to begin to explore meaningful (quality) journalistic-type information. To conclude, by and large, the findings and recommendations being advanced in this study are related to conditions that are manifest in the overlapping zone depicted in this hybrid model. The author of this study encourages a call for further research that focuses on phenomena encountered in the overlapping zone of this model.

The next sub-section discusses the hybrid theoretical model as applied to the macro-level perspective.

### **3.6.2 Diagrammatic representation of the hybrid theoretical model (applied macro-level perspective)**

In Figure 2 (below), a “zoomed-out” macro-level perspective, depicts the same set of four components that are shown in Figure 1. The principle characteristics of this (macro-level) perspective are listed below:

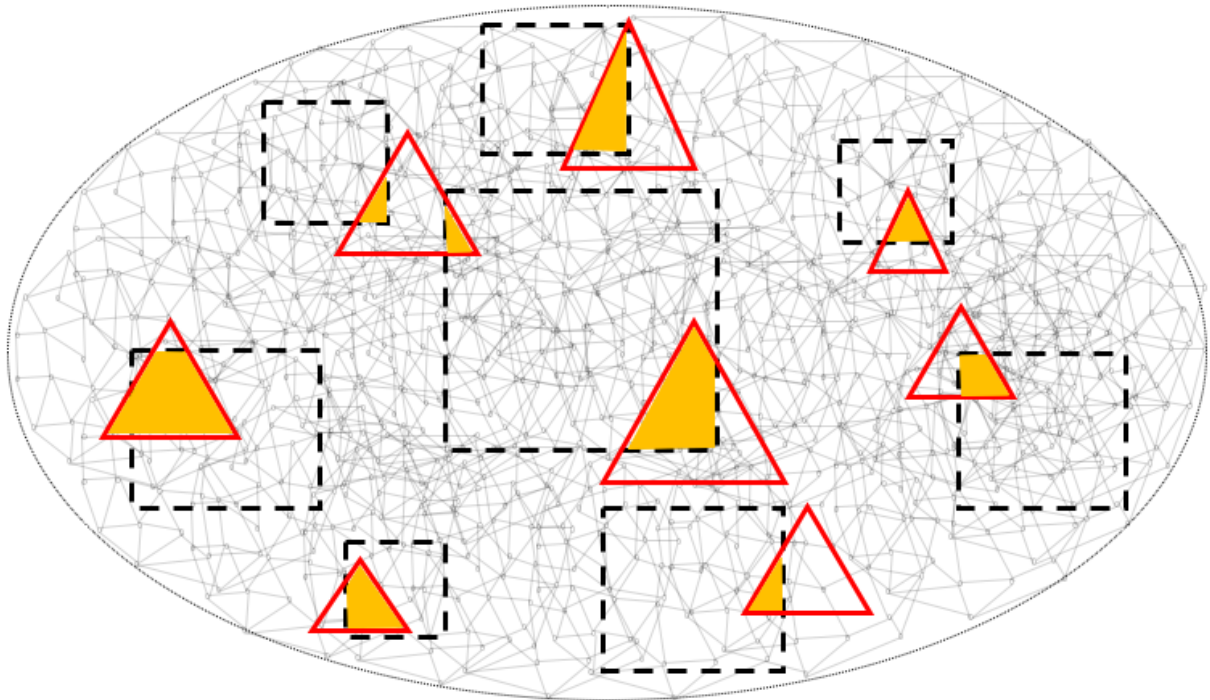


Figure 2—Hybrid theoretical model (applied macro-level perspective)

Note: the principle characteristics listed below includes characteristics already identified and discussed in Figure 1. However, further characteristics relevant specifically to this applied macro-level perspective are as follows:

1. Multiple networked public spheres can exist within the information society. These might be constituted around a specific Twitter hashtag.
2. As Rauchfleisch and Schäfer (2015:139) have suggested, multiple [networked] public spheres “can occur under specific circumstances”.
3. It is possible for news organisations to engage (i.e. to overlap) in multiple networked public spheres. As such these diverse sets of issues find their existence within different networked public spheres.
4. Some networked public spheres might be considerably larger than others. Similarly, some networked public sphere spaces might exist for a much longer period than others.
5. All public spheres exist within the broader confines of the information society. For the theoretical principles of this hybrid model to be cross-applied, networked public spheres cannot exist outside of the confines of the information society. To do so, would be to exclude the notions of the information society, thereby resulting in an overlap that is unidentifiable and thus impossible to cross-apply.



6. News organisations might be many in number, or far less. As such, in some cases, one might encounter a very limited number of news organisations engaging small networked public spheres. In some cases, it is possible that not a single news organisation will engage a particular networked public sphere (although such a scenario is far less likely to be encountered).
7. The overlapping zones can at times be significant in area—possibly even overlapping entirely—but in other cases, the overlap might be far less significant in area.

This concludes the short discussion of the applied macro-level perspective of the hybrid theoretical model. An in-depth discussion and analysis of the applied macro-level perspective falls outside of the scope of this study because it detracts from the focus of this research.

### **3.6.3 Discussion of primary concept emanating from both hybrid theoretical models**

Be reminded that a concept “is a core term in a theory that summarizes an important aspect of the problem under study [which] can be used in collecting and interpreting evidence” (McQuail, 2010:5). The primary concept emanating from this hybrid theoretical model is that of meaningful (quality) journalistic-type information. Whilst the public (i.e. individuals/users) continually engage one another in the information society, the author of this study asserts that it is more likely within the boundaries of the overlapping trigger zones that meaningful (quality) journalistic-type information stands to be most forthcoming, meaningful and valuable. In other words, as Webster (2014:5) has pointed out, quality of information is critically important for enhancing individuals’ (i.e. society’s) knowledge of what is happening in the world. But, not all information is meaningful in the information society. However (within the framework of this model) in an overarching information society mode of existence, it is far more likely—within the overlapping trigger area/s, where news organisations’ functional involvement coincides with the networked public sphere—that access to mediated meaningful (quality) journalistic-type information stands to be gained.

Additional sub-concepts emanating from the aforementioned primary concept will be dealt with in the final chapter of this study. The next chapter deals with a discussion of the research design and methodology followed for this study.

## CHAPTER 4: Research Design and Methodology

### 4.1 Introduction

This chapter provides a comprehensive discussion of the research design and methodology that was used for this study. The first section commences with discussion of the preliminary research design considerations. The section thereafter discusses issues relevant to data gathering and how the Twitter data-set was mined. This is followed by a discussion of the sampling approach that was adopted and how the news organisations were selected from the overall Twitter data-set. The penultimate section of this chapter deals with a short discussion of the approach that was employed for the data-analysis component of the study, followed lastly by a concluding discussion highlighting some of the notable limitations of this study.

In a recent review of related research literature, Snelson (2016:1) presented an “overview of trends in qualitative and mixed methods social media research literature published from 2007 through 2013”. Most notable in Snelson’s (2016:1) findings, is that social media research has become more “commonplace” ... and that “studies emphasizing Facebook, Twitter, YouTube, social media, and social networking have entered the mainstream of academic literature”. When offering directions for further research, Snelson (2016:12) notes that only 27% of all academic articles “included discussion of the use of software or other [computer-assistive] technologies to collect or to analyze data”. Snelson (2016:12) asserts that

[s]ocial media content can be tedious to capture, but [computer-assistive] tools for harvesting and analysis of online social media content are becoming more readily available and user-friendly.

In her final analysis, Snelson (2016:12, own emphasis) encourages future research that might provide a more “cohesive framework that clearly identifies best practices in the *selection and coupling of appropriate methods and technologies* for social media research”. Moreover, Snelson (2016:12) makes the recommendation that future social media research would do well to “build on alternative mixed methods typologies that integrate interpretive and evaluative approaches” that “promises to advance knowledge of social media methodologies and promote rich discussions of method and technology in this growing field of [qualitative and mixed methods social media research]”. It must be borne in mind too, that of itself, “methods for studying Twitter has become a focus for research” (Hermida, 2013b:296). Therefore, the research design for this study contributes towards the

advancement of Twitter-based research methodologies that can be applied in journalism and media studies contexts.

The next section deals with discussions surrounding the research design considerations for this study.

## **4.2 Research design: a combination of variables that constitute the research design framework**

This section discusses certain of the core components that, when combined, constituted the research design framework for this study. The first section deals with a discussion of mixed-method research. Thereafter, the case study approach is discussed. This is followed by a discussion of (computer-assisted) content analysis (CA) and combined content analysis (CCA). Lastly, *Tableau*<sup>®</sup> as computer-assistive tools for content analysis will be discussed.

### **4.2.1 Mixed-method research**

As stated in section 1.6.1 of Chapter 1, but briefly summarised here, mixed methods research combines “specific positivistic elements of quantitative research methods with specific constructivist elements of qualitative research methods” (Mills *et al.*, 2010, para. 1). For this reason, this study made use of a mixed-method research design for a case study, which involved researching the quantitative components of the Twitter data-set by means of computer-assisted (using *Tableau*<sup>®</sup>) quantitative content analysis, and the research of the qualitative component (i.e. the Tweet’s text field) of the Twitter data-set was done by means of a qualitative content analysis. Bosch’s (2016:226) research experience in *Twitter and participatory citizenship: #FeesMustFall in South Africa*, was such that quantitative analysis on its own was unable to reveal the full nature of the tweets that were investigated. As such, a component of Bosch’s (2016:162) research methodology employed the use of an “exploratory qualitative content analysis of selected tweets” to find out more about the “purpose and nature of the online conversations” that took place relevant to #FeesMustFall. In other words, the qualitative aspect to Bosch’s study facilitated the exploration of initially unknown aspects relevant to some of the tweets that contained the #FeesMustFall hashtag. Employing the use of a qualitative component in research design was also done by Yardi and Boyd’s (2010:318–319) study which saw tweets being qualitatively coded in order to measure patterns of behaviour on Twitter. Consequently, the author of this study adopted a similar research design rationale. The mixed-method approach facilitates the establishment of a “holistic interpretive framework for generating possible solutions or new understandings of the problem” (Labaree, n.d.). There is much literature to support the fact that

not all information from Twitter data-sets can be gained purely from studying quantitative content analysis alone.

Labaree (n.d.) offers a good summary of the advantages and limitations of mixed-methods research designs. Of relevance to this study, the following stands out as being particularly relevant and thus worthy of consideration (Labaree, n.d.):

- “A broader, more complex research problem can be investigated because the researcher is not constrained by using only one method.”
- “Can provide stronger, more robust evidence to support a conclusion or set of recommendations.”
- “May generate new knowledge, new insights or uncover hidden insights, patterns, or relationships that a single methodological approach might not reveal.”
- “Produces more complete knowledge and understanding of the research problem that can be used to increase the generalizability of findings applied to theory or practice.”

It must nevertheless also be kept in mind though, that mixed-method research designs carry some degree of caution too. This include the researcher’s need for proficiency on “how to design a study that coherently melds them together”, and the possibility of getting “ambiguous findings that inhibit drawing a valid conclusion” (Labaree, n.d.). The author of this study was suitably satisfied that the preceding set of considerations have been duly factored into the research design that was formulated for this study.

Having dealt with a discussion of mixed-method research, the next section deals with the case study aspect of the research design. When discussing the interrelationship of these two research concepts, Mills, Durepos and Wiebe (2010) state that:

[b]ecause both inductive and deductive reasoning are applied in mixed method research, the results are far more robust, *especially in case study research* ... In short, mixed method research is so powerful because it allows the “gaps” in qualitative research methodologies to be filled or overlapped by quantitative methodologies and techniques and vice versa” (own emphasis).

Case study approaches will be discussed in the next sub-section.

#### 4.2.2 Case study approach

Case study research is a good match for mixed methods research, because there are so many different approaches that can be applied to “research design, analysis, and interpretation” (Mills *et al.*, 2010). The case study approach is “guided to obtain a specific desired outcome ... by answering an evaluative research question” (Du Plooy, 2004: 180). The use of the case study approach is well-suited to “how” and “why” research questions (Wimmer & Dominick, 2005: 138). Bruns and Stieglitz (2013:91) note that “much research into [social media] uses remains centred around isolated cases”. Stake (2009:25) says that

[c]ase studies are likely to continue to be popular because of their style and to be useful for exploration for those who search for explanatory laws. ... [As such] case studies can be expected to continue to have an epistemological advantage over other inquiry methods as a basis for naturalistic generalization.

Thus, the case study approach is particularly well-suited to one of the objectives of this study, namely, to offer a set of findings where the hybrid theoretical model can be applied in future case studies with a similar set of research conditions. By way of reminder, the hybrid theoretical model is relevant only to patterns that prevail under certain conditions (Fourie, 2007:108). Thus, any “explanatory laws” that are likely to stem from the findings and recommendations in this study, could—under a limited set of similar research conditions—be applied to similar case studies too. This satisfies one of the secondary research ideals of this study—and, which was mentioned in the introductory section of this chapter—namely, to respond to Snelson’s (2016:12) recommendation that (new) research will provide a “cohesive framework that clearly identifies best practices in the selection and coupling of appropriate methods and technologies for social media research”. Thus, in short: the unique application of the hybrid model developed for this study, coupled with the case study approach for this investigation, allows certain aspects of the explanatory laws that were discovered in this study to be applied as possible interpretive guidelines in similar future journalism (and media studies) research projects. Moreover, the cohesive research design (and methodological framework) that was employed for this study, can now more easily be adopted for future journalism (and media studies) research projects.

In the next sub-section, (computer-assisted) content analysis (CA) / combined content analysis (CCA) will be discussed.

#### 4.2.3 (Computer-assisted) content analysis (CA) and combined content analysis (CCA)

Wimmer and Dominick (2005:151) say that quantitative content analysis is “systematic and objective”. When it comes to researchers’ preferred approach to the study of, *inter alia*, Facebook posts and Twitter posts, Snelson’s (2016:1) study found that content analysis (CA) was a “commonly used approach”. Thus, the popularity of CA for researching “various types of communication research” including mass-media content (Du Plooy, 2004: 213) has been adopted as the preferred approach for social media content too. Wimmer and Dominick (2005: 150) say that CA is frequently used “in all areas of media”. This continues to be the case today, albeit that contemporary content analysis is seemingly taking on more nuanced research design configurations to that of original content analysis approaches that were first used for mass media research. Therefore, the content analysis approach used for this study was supported with a computer-assisted intervention.

It must be noted that the distinction being made here, is that content analysis can also be described as combined when used specifically for social media investigations. Because this study deals with Twitter and tweets, “the CCA [combined content analysis] model [is] a useful framework that provides a straightforward approach to guide Twitter-driven studies” thereby providing well for social media investigations (Hamad, Savundranayagam, Holmes, Kinsella & Johnson, 2016). More generally speaking, CA is a commonly used approach for researchers wishing to examine Facebook posts and Twitter tweets (Snelson, 2016:1). In fact, Snelson (2016:1) says that, “[c]ontent analysis was a dominant analytic approach used within studies that involved social media content such as Facebook posts, tweets (Twitter posts), or YouTube videos”. This is because “text is always qualitative to begin with and the quantification of text alone is insufficient for successful understanding of content” (Hamad *et al*, 2016:8). Therefore, the better research alternative would be to use a combination of quantitative and qualitative methods, which in turn, contribute to the “dialectic integration of inductive (working from the data level) and deductive (working from the theoretical or hypothetical level) approaches” (Hamad *et al*, 2016:8). Owing to “the nature of Twitter feeds”, Hamad *et al* (2016:8) recommend that the CCA model is preferred over that of the CA model which does not have a “clearly laid out and adapted methodology. Hamad *et al* (2016:8) suggests that:

The CCA design is useful when the researcher has more than 1 [research] question [which is] best addressed through the use of multiple methods, or when the aim is to gain the best from each method by combining them to address a particular question.

It is for this reason that the use of the computer-assistive tool *Tableau*<sup>®</sup> was decided upon as the best option for a combined content analysis of this study's Twitter data-set with its complex assortment of content embedded within each tweet. Embedded tweet content might be best understood as a collection of data fields. Within the Twitter framework, tweet-fields are sub-categorised into objects. Later in this chapter the structure of these objects will be discussed. Suffice it to say, certain tweet-fields required a different approach when analysing the data, in order to produce meaningful CCA visualisations in *Tableau*<sup>®</sup>. In most cases *Tableau*<sup>®</sup> suitably handled the processing of tweet-fields that were imported into the software programme. However, two specific tweet-fields—both data components of different “object” sub-sections—required additional qualitative data-analysis in order to suitably ascribe meaning to the content that was analysed within these tweet-fields. The two tweet-fields in question were the “retweeted\_status\_text” tweet-field and the “text” tweet-field. Respectively, the former tweet-field is part of the “tweets object”, and the latter tweet-field is part of the “entities in objects, object”.

#### **4.2.4 Computer-assistive tools for content (i.e. data) analysis—*Tableau*<sup>®</sup>**

Ausserhofer and Maireder (2013:297) make reference to their computer-assistive research methodology that was derived from researchers from Queensland University of Technology who used a combination of visualisations coupled to hashtags. In particular, the visualisations contributed toward the distilling of data, to allow more clarity to be brought to the overall discussion (Ausserhofer & Maireder, 2013:297). When it came to the selection of a suitable computer-assistive tool for this study, it was noted that—as Bruns and Stieglitz (2013:95) have said—choices of research technologies “depend on the size of the data-sets gathered”. In this regard, Bruns and Stieglitz (2013:95) have explained that

[s]preadsheets and MySQL databases of tweets do not scale well, causing increasing problems in handling data as they grow beyond a few tens or hundreds of thousands of tweets (and related metadata). Larger data-sets (containing millions of tweets) require more advanced solutions which

utilise state-of-the-art NoSQL database solutions (Bruns & Stieglitz, 2013: 95).

For this primary reason, *Tableau*<sup>®</sup> was selected for this study because it is particularly well-suited for handling extremely large Microsoft Excel worksheets. In the case of this study, the initial data-set existed as a Microsoft Excel spreadsheet. To give an idea of the size of the initial data-set, the worksheet spanned some 37 columns wide, by 376 708 rows deep. Each row represented a single tweet. Thus, the original Twitter data-set (in Microsoft Excel format) comprised a total of 376 708 tweets.

Referring specifically to *Tableau*<sup>®</sup>, Binsbergen (2013:9) says that:

Tableau is visually the most appealing statistical analysis tool. Tableau Desktop lets you interact with the data through an easy to use drag and drop system. You can connect to data in a few clicks, then visualize it by selecting and adjusting one of the preset interactive dashboards.

Applying this to the computer-assistive aspect of a research design, Binsbergen (2013:2, own emphasis) says that “quantitative (or computer-based and automated) analysis is better suited for closed inquiries, and typically results in emergent categories rather than manually assigned categories... [and, moreover] ...applies to manifest contents (literal content) rather than its latent meaning (implied content)”. What this means, is that *Tableau*<sup>®</sup> works with emergent (tweet-field) categories that were automatically extracted from the Twitter data-set. For example, *author\_username*, *user\_followers\_count*, *retweeted\_status\_text*, and *user\_mentions* are notations for referencing distinct tweet-fields, and which were automatically generated by the Twitter REST API. Thus, the manifest content (i.e. literal content) that Binsbergen speaks of, was automatically interpreted as such by *Tableau*<sup>®</sup>. For the latent meaning (i.e. implied content) embedded in the tweet-fields (e.g. the *text* field) a qualitative interpretative element to the analysis of the data-set was required.

Making use of computer-assistive tools for research does come with some caution. Binsbergen (2013:2) states that

when using large amounts of data, the researcher becomes more and more reliable on programs that handle the data. A problem that occurs here is the



lack of understanding of such programs. ... It usually takes some investing to understand how to get the program to process the data you give it in the desired fashion. Even then the program remains a ‘black box’ whose inner workings are to a certain degree unknowable to the user. This is problematic for the systematicity and reproducibility of the research.

Binsbergen’s words of caution may be suitably counter-balanced when sufficient research-planning and organising is integrated into the research process. The author of this study invested a considerable amount of time to learn how to use *Tableau*<sup>®</sup>. In this regard, the industry-leading status<sup>3</sup> of *Tableau*<sup>®</sup> continues to be such, that there is a plethora of different types of training that is available to users who wish to learn more about *Tableau*<sup>®</sup>. *Tableau*<sup>®</sup>’s industry-leading status suitably counter-balances Binsbergen (2013:2) concern for the potentially problematic issues relevant to the “systematicity and reproducibility” of research when relying upon computer-assistive tools.

Now that the *combination* of variables that constitute the research design framework has been outlined, the next section provides a discussion of the research methodology used for this study.

### **4.3 Research methodology: Data-gathering (mining the Twitter data-set)**

By way of introduction, it is worthwhile keeping in mind that it is becoming increasingly more “difficult for academics to obtain comprehensive access” to raw data because—as Batrinca and Treleaven (2015: 90) have said—“few social data sources provide affordable data offerings to academia and researchers”. Two significant barriers to being able to suitably engage in academic social media research are: 1. the difficulty of getting access to comprehensive data sets, and 2. getting access to “tools that allow ‘deep’ data analysis without the need to be able to program in a language such as Java” (Batrinca & Treleaven, 2015:90). As Batrinca and Treleaven (2015:91-92) have established, the commercialisation of social media resources has led to a strong tendency—by the organisations that own these social media tools—to “monetize their data”. For this study, high cost

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<sup>3</sup> According to Gartner methodology for rating business intelligence computer software applications. Specifically, the Gartner Magic Quadrant for Analytics. *Tableau*<sup>®</sup> has been, and continues to be clear front-runner (Ajenstat, 2017).

of acquiring the Twitter data-set was circumvented by making use of Twitter's public REST API which was subject to rate limits.

Tweets are constructed of several data fields. These fields are not apparent on the end-user Twitter interface. For this study, it was necessary to obtain (i.e. mine) a significant sample of tweets (identifiable primarily by the #FeesMustFall hashtag). The assistance of a data-scientist contributed to the technical aspects related to the mining of Twitter data. One of the caveats with hashtag-based research is that some tweets might "not contain hashtags" (Ausserhofer & Maireder, 2013:297). As such, tweets that might have been a part of the discourse on the student protests, but which did not include the #FeesMustFall hashtag, would not have been included in the final Twitter data-set that was mined.

With relevance to Twitter's REST API, there is no guarantee that every single tweet featuring the #FeesMustFall hashtag was collected (Findlay, 2016). "REST APIs provide programmatic access to read and write Twitter data" ("REST APIs: Twitter developers", n.d.). Bruns and Stieglitz (2013:93) state that when mining data via the REST API, there are no guarantees that "all tweets matching the tracking criteria will be captured by this process" owing to unavoidable transmission interruptions (that may be ascribed to factors within the communications network). Additionally, Bruns and Stieglitz (2013:93) highlight that

because the Twitter API constitutes the only avenue of large-scale access to Twitter data which is available to researchers, there are few opportunities for independent verification of data fidelity: spot checks can be performed by searching for the hashtag through the Twitter Website, but such checks are ineffective for large data-sets.

The author of this study is sufficiently confident that there was no cause for suspecting that there was any breach to the "data fidelity" for the Twitter data-set that was mined. After all, "researchers need to accept a (small) margin of error in their data captures, and treat the resulting data-sets as close approximations of the total amount of hashtag activity, but not as entirely exhaustive representations" (Bruns & Stieglitz, 2013:93).

In sum, the data-gathering phase of this study produced a total of 376,708 tweets that were mined. As a percentage of the estimated 1½ million tweets that were generated (Maggs, 2015), the Twitter data-set investigated for this study represented an approximate 25.33% sample of the total tweets that were estimated to have been generated for the period under review.

In the next sub-section, the tweet-fields obtained via the REST API will be discussed.

#### **4.3.1 Tweet-fields (obtained via REST API)**

Bruns and Stieglitz's (2013:93) discussion of tweet-fields served as precedent for the ensuing discussion for this study. The Twitter "Field Guide" ("Tweets: Twitter developers", n.d.) provides the following explanation relevant to the mining of tweets using an API:

Consumers of Tweets should tolerate the addition of new fields and variance in ordering of fields with ease. Not all fields appear in all contexts. It is generally safe to consider a nulled field, an empty set, and the absence of a field as the same thing. Please note that Tweets found in Search results vary somewhat in structure.

The tweet-fields for this study were mined for their suitability in relation to hashtag-topic research questions. As such, there were tweet-fields that were excluded from the mining process.

The next section describes the data cleaning process—this deals with a progression on the preceding discussion, stating specifically what tweet-fields were selected for this thesis.

#### **4.3.2 Data cleaning**

Once data has been gathered, it is necessary to subject it to the further step of preparing it (Bruns & Stieglitz, 2013:95)—such that it will be ready for use and analysis. Thus, for the Twitter data-set for this study, a data-cleaning process was also used to "clean up" (i.e. remove) tweets that proved to be irrelevant to the final required data-set.

Bruns and Stieglitz (2013:95) say that retweets might electively (by researchers) be removed from a Twitter data-set that is being investigated. However, retweeting might also be regarded as "an important instrument for information sharing, and therefore of high importance for understanding the characteristics of the overall communicative context" (Bruns & Stieglitz, 2013: 95). Whether retweets are discarded or not, "such decisions must be made (and documented) on a case-by-case basis" (Bruns & Stieglitz, 2013:95). In the case of this study, retweets formed an integral part of the study, and as such, were retained during the data cleaning process.

Findlay (2016) states that "social data is inherently messy" implying that when mining Twitter data, researchers/data miners "need to accept a certain level of ambiguity" to be inherent in the data-set.

As such, when the data-mining process was employed for the Twitter data-set for this study, the following Tweet-fields were retained (and others discarded)—as these were deemed to be the most relevant to the study at the time of the mining of the data:<sup>4</sup>

- fields mined within the **tweets object**<sup>5</sup>
  - **text [renamed to Tweet Details]:** The actual UTF-8 text of the status update [i.e. tweet text]
  - **created\_at [renamed to Date Created]:** time when this Tweet was created
- fields mined within the **users object**<sup>6</sup>
  - **author\_username [renamed to @Username]:** The name of the user, as they have defined it. Not necessarily a person's name. Typically capped at 20 characters, but subject to change [this is the user's @username—for example, @News24, or @Netwerk24Berig, or @BDLiveSA]
  - **user\_name [renamed to User Screenshot ]:** screen name, handle, or alias that this user identifies themselves with. Screen\_names are unique but subject to change. [this is the user's descriptive screen name—for example, "News24", or "Netwerk24 Berig", or "Business Day"]
  - **user\_followers\_count [renamed to User Followers]:** number of followers this account currently has
- fields mined within the **entities object**<sup>7</sup>
  - **user\_mentions\_0\_screen\_name:** first screen name, handle, or alias that was mentioned inside a tweet/retweet
  - **user\_mentions\_0\_name:** first @username mentioned inside tweet

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<sup>4</sup> ("REST APIs: Twitter developers", n.d.)

<sup>5</sup> ("Tweets: Twitter developers", n.d.)

<sup>6</sup> ("Users: Twitter developers", n.d.)

<sup>7</sup> ("Entities: Twitter developers", n.d.)

- **user\_mentions\_1\_screen\_name:** second screen name, handle, or alias that was mentioned inside a tweet/retweet
- **user\_mentions\_1\_name:** second @username mentioned inside tweet
- **user\_mentions\_2\_screen\_name:** third screen name, handle, or alias that was mentioned inside a tweet/retweet
- **user\_mentions\_2\_name:** third @username mentioned inside tweet
- **user\_mentions\_3\_screen\_name:** fourth screen name, handle, or alias that was mentioned inside a tweet/retweet
- **user\_mentions\_3\_name:** fourth @username mentioned inside tweet
- **user\_mentions\_4\_screen\_name:** fifth screen name, handle, or alias that was mentioned inside a tweet/retweet
- **user\_mentions\_4\_name:** fifth @username mentioned inside tweet
- **entities\_hashtags\_0\_text:** the first hashtag mentioned inside tweet
- **entities\_hashtags\_1\_text:** the second hashtag mentioned inside tweet
- **entities\_hashtags\_2\_text:** the third hashtag mentioned inside tweet
- **entities\_hashtags\_3\_text:** the fourth hashtag mentioned inside tweet
- **entities\_hashtags\_4\_text:** the fifth hashtag mentioned inside tweet
- fields mined within the **entities in objects, object**<sup>8</sup>
  - **retweeted\_status\_text:** a representation of the *original* Tweet that was retweeted. Note that retweets of retweets do not show representations of the intermediary retweet, but only the original Tweet. (Users can also unretweet a retweet they created by deleting their retweet.)
  - **retweeted\_status\_created\_at:** time when this retweet was created

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<sup>8</sup> (“Entities in objects: Twitter developers”, n.d.)

- **retweeted\_status\_user\_screen\_name:** the name of the user @Mention[ed] in a retweet (RT) only.

The next section describes the sampling process and how South African news organisations were selected for this study.

#### **4.3.3 Research methodology: Sampling—selecting all South African news organisations**

For this study, all South African news organisations that tweeted using the hashtag #FeesMustFall were selected for inclusion in the computer-assisted analysis that was facilitated using the *Tableau*<sup>®</sup> software tool. From the Twitter data-set, a total of 52 Twitter user accounts (see Figure 3 on following page) were selected for inclusion in the analysis. These 52 Twitter accounts represented the collective set of South African news organisations that featured in the Twitter data-set. As such, these individual Twitter user accounts, when grouped together, were collectively regarded as the set of news organisations' tweet-activity on the Twitter (networked) public sphere. The basic premise upon which these 52 news organisations were selected, was to:

- Assess all news organisations' tweet-activity
- Exclude individual journalists' tweets from that of news organisations' tweet-activity

South African news organisations -  
Followers  
(number of Followers)

All News Organisations	
AMLiveOnSAfm	31 225
ANN7Reporter	7 337
ANN7tv	45 552
BDliveSA	125 420
CapeTalk	99 794
CapeTimesSA	18 474
City_Press	562 220
dailymaverick	178 242
dailysunsa	54 043
Die_Burger	39 231
Dispatch_DD	13 809
ECR_Newswatch	69 387
eNCA	669 541
etvSunrise	40 684
ewnreporter	271 505
ewnupdates	461 750
GrootFM	14 395
HeraldPE	16 426
ilisolezwe	1 242
IOL	156 156
JacaNews	110 716
mailandguardian	449 780
mojoIOL	765
MorningLiveSABC	79 501
MyNews24	90 214
Netwerk24	102 115
Netwerk24Beriq	8 454
News24	1 438 736
POWER987News	28 282
pretorianews	6 928
Radio702	313 425
Radio2000_ZA	16 656
SABCNetwork	1 388
SABCNewsOnline	506 558
SABCNewsroom	4 634
SABCTVNews	5 265
safmmiddaylive	2 934
SAfmnews	202 160
safmpmlive	19 362
SAfmRadio	47 146
Sonkoerant	8 150
SowetanLIVE	310 268
SundayTribuneSA	3 313
The_New_Age	193 267
TheCapeArgus	21 627
TheCitizen_News	17 160
thedailyvox	6 964
TheMercurySA	70 439
TheWeekendArgus	2 581
TimesLIVE	472 447
TimesLiveNews	15 480
zanews	16 179

Figure 3—News organisations' Twitter accounts that formed part of this study.

Armstrong and Gao's (2010) research, *Now tweet this: How news organizations use Twitter*, indirectly informed the selection methodology for this study. In their study, Armstrong and Gao (2010:219) selected a sample of news organisations as part of their "attempt to examine how news organizations are employing Twitter to link consumers to their news feeds and disseminate information". Also, two further South African sources were consulted for the process of determining exactly which Twitter account belonged to which news organisation. These were:

- The published document, *Who owns the news media in SA?* (Theobald, Anthony & Makuwerere, 2016)
- Email correspondence with Thandi Smith, head of the policy unit and media analyst at Media Monitoring Africa (Smith, 2017). This additional source served to assure the author of this study, by means of a “double-check” corroboration exercise, that the information that obtained from the published document listed above.

Consequently, for this study, the South African news organisations featured in this data-set were grouped into sub-categories. Each sub-category best-describes a logical association to either: the communication medium (in the case of the *Broadcast* category); or, to the logical association to the name of the holding company of a particular news organisation (in the case of *Independent Newspapers*, *Naspers* and *Times Media Group / Kagiso*). Remaining standalone news organisations were assigned to a category called *Others*. The list of sub-categories is as follows:

- Broadcast (all TV and radio)—named: **Broadcast**
- Independent Newspapers—named: **Independent Newspapers**
- Naspers—named: **Naspers**<sup>9</sup>
- Times Media Group / Kagiso—named: **TMG/Kagiso**
- All other standalone entities—named: **Others**

Additional methodological notes relevant to the selection of news organisations’ Twitter accounts were as follows:

- No distinction was made between national, regional or local types of coverage.
- The focus of this study lies mostly with an analysis that applies to all news organisations (as a collective set), and less so with an analysis that applies to the sub-categories. As

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<sup>9</sup> The naming convention for this study adopts the official name of the holding/shareholder company name. Naspers is the holding company of one of its subsidiaries, Media 24. For this reason, where Naspers is used as the descriptive label in the Figures (i.e. visualisations) that follow, Media 24 is intended.



such, the reasons underlying why each sub-category was defined as it was is not of primary significance to the primary research question and overall findings of the study. Accordingly, the sub-categories were named as they were, merely to facilitate a more meaningful drilling-down process when analysing the data for individual news organisations.

- The primary reason for the sub-categorisation of news organisations was to facilitate options for providing some comparative analysis between the various groups of news organisations to which the individual Twitter accounts belonged.
- The sum of all news organisation belonging to the aforementioned list of sub-categories constituted the total set of South African news organisations.

This concludes the discussion on sampling and why all South African news organisations featured in the Twitter data-set were selected for inclusion in this study. The next final section describes the primary limitation of this study.

#### **4.3.4 Primary limitation of the analysis conducted for this Twitter data-set**

It is noted that case studies “are not a suitable basis for generalization” (Stake, 2009) of findings and conclusions. Thus, the findings and conclusions for this study are not generalisable to a broad assortment of case studies. However, distinction between “findings and conclusions” and “explanatory laws” must be made here. In section 4.2.2, paragraph 3 of this chapter, reference is made to the likelihood that when certain explanatory laws are possibly discovered in this study, these might well be applied as suitable interpretive guidelines in similar journalism and media studies research projects. Therefore, in short, although the findings and conclusions flowing from this study cannot be universally applied to all and every hashtag-related research project, the interpretive guidelines flowing from this study may well be of significant value to a select number of case studies that might closely resemble the conditions of this study. Also, this study examines only a small time-segment in the much longer life-span of the #FeesMustFall phenomenon. The #FeesMustFall student uprising and protests did in fact continue after the end-date of this study. Consequently, #FeesMustFall ended up being a significant part of media discussion for several months following the cut-off date of this study. As such, the conclusions and findings for this study may not necessarily apply to a much larger Twitter data-set spanning a lengthier date-range.

This concludes Chapter 4 of this study. The next chapter deals with the data analysis and research findings that emanated from the study of the Twitter data-set.

## **CHAPTER 5: Data analysis and research findings**

### **5.1 Introduction**

As originally presented in section 1.5.2 of chapter 1, the primary research question for this study was:

**For #FeesMustFall, how did South African news organisations engage the Twitter networked public sphere?**

In order to provide a solid platform to suitably answer this question, secondary research questions needed to be addressed. This chapter answers the ten sub-questions as outlined in Chapter 1 of this study. By means of a series of visual representations each of these secondary research questions will now be addressed.

Note that the primary research question will only be discussed in Chapter 6. Also, note that section 4.3.3 at the end of the previous chapter has already explained how the South African news organisations' Twitter accounts were sorted into sub-categories in order to offer additional nuanced insights and meaning to the data-set that that was analysed. Accordingly, the names and descriptions of these sub-categories was presented as well.

The next section is the commencement and discussion of the first of the secondary research questions.

### **5.2 Which Twitter accounts were those of which South African news organisations?**

Figure 4 is presented. The discussion that follows offers a brief explanation of primary observations as evidenced in the data contained in the Figure 4. Whilst only one example will be used (using that of the Twitter account *amliveonsafm*) to explain the meaning of the columns of data being represented in Figure 4, the same applies to all news organisations covered in the list. Note: the rest of the discussion in Chapter 5 will not however be referring back to Figure 4. However, Figure 4 does serve as the main list (i.e. primary reference) of which Twitter accounts were those of which South African news organisations.

Twitter account name	Number of Records	User Followers Count	Holding / Shareholder	Others	Broadcast	TMG / Kagiso	Naspers	Independent Newspapers	Total
amliveonsafm	42	31 225	South African Broadcasting Corp. (SABC)			1			
ANN7Reporter	1	7 337	Oakbay Investments	1					
ANN7tv	183	45 552	Oakbay Investments		1				
BDliveSA	2	125 420	TMG / Kagiso				1		
CapeTalk	44	99 794	Primedia		1				
CapeTimesSA	21	18 474	Independent Newspapers						1
City_Press	126	562 220	Naspers					1	
			Not available in source - self-owned: Daily						
dailymaverick	60	178 242	Maverick	1					
dailysunsa	4	54 043	Naspers					1	
Die_Burger	12	39 231	Naspers					1	
Dispatch_DD	19	13 809	TMG / Kagiso				1		
ECR_Newswatch	7	69 387	TMG / Kagiso			1			
eNCA	134	669 541	Hosken Consolidated Investments			1			
etvSunrise	7	40 684	Hosken Consolidated Investments			1			
ewnreporter	179	271 505	Primedia	1					
ewnupdates	26	461 750	Primedia	1					
			Not available in source - self-owned:						
GrootFM	2	14 395	GrootFM		1				
HeraldPE	16	16 426	TMG / Kagiso				1		
ilisolezwe	4	1 242	Independent Newspapers						1
IOL	64	156 156	Independent Newspapers						1
JacaNews	171	110 716	TMG / Kagiso			1			
mailandguardian	10	449 780	Mail and Guardian	1					
mojoIOL	41	765	Independent Newspapers						1
MorningLiveSABC	1	79 501	South African Broadcasting Corp. (SABC)			1			
MyNews24	9	90 214	Naspers					1	
Netwerk24	31	102 115	Naspers					1	
Netwerk24Berig	415	8 454	Naspers					1	
News24	32	1 438 736	Naspers					1	
POWER987News	141	28 282	MSG Afrika			1			
pretorianews	1	6 928	Independent Newspapers			1			
Radio702	60	313 425	Primedia			1			
Radio2000_ZA	4	16 656	South African Broadcasting Corp. (SABC)			1			
SABCNetwork	2	1 388	South African Broadcasting Corp. (SABC)			1			
SABCNewsOnline	111	506 558	South African Broadcasting Corp. (SABC)			1			
SABCNewsroom	44	4 634	South African Broadcasting Corp. (SABC)			1			
SABCTVNews	27	5 265	South African Broadcasting Corp. (SABC)			1			
safmweekdaylive	20	2 934	South African Broadcasting Corp. (SABC)			1			
SAfmnews	15	202 160	South African Broadcasting Corp. (SABC)			1			
safmpmlive	25	19 362	South African Broadcasting Corp. (SABC)			1			
SAfmRadio	14	47 146	South African Broadcasting Corp. (SABC)			1			
Sonkoerant	26	8 150	Naspers					1	
SowetanLIVE	4	310 268	TMG / Kagiso				1		
SundayTribuneSA	2	3 313	Independent Newspapers						1
The_New_Age	151	193 267	Oakbay Investments	1					
TheCapeArgus	78	21 627	Independent Newspapers						1
TheCitizen_News	33	17 160	Caxton	1					
thedailyvox	279	6 964	Not available in source	1					
TheMercurySA	5	70 439	Independent Newspapers						1
TheWeekendArgus	43	2 581	Independent Newspapers						1
TimesLIVE	13	472 447	TMG / Kagiso				1		
TimesLiveNews	7	15 480	TMG / Kagiso				1		
			Not available in source - self-owned:						
zanews	6	16 179	ZANews	1					
	2774	7 449 325		9	21	6	8	8	52
Total tweets in data-set	376 708								
Percentage news organisations' tweets in relation to all tweets in data-set:	0,74%								

Figure 4—List of news organisations with categorisation columns.

The data in Figure 4 is a tabular layout of the full list of 52 news organisations that this chapter deals with. Included, are columns that indicate the number of records (i.e. tweets), as well as the number of followers for each news organisation. For example, the twitter account with the name *amliveonsafm*, indicates a total of 42 tweets that were tweeted. Further, the *amliveonsafm* twitter account is attributed with having a total of 31 225 followers. Additionally, the column entitled Holding/Shareholder indicates the name of the news organisation that the *amliveonsafm* twitter account belongs to; in this example namely, the South African Broadcasting Corporation (SABC). The remaining columns, indicate the itemisation of the category types of the South African news organisations as they apply to each of the 52 Twitter accounts. Thus, to continue with the example, *amliveonsafm* (which is the Twitter account of the radio station SAfm) was allocated to the Broadcast group. In sum, the five categories contained the following number of Twitter accounts: Other=9; Broadcast=21; TMG/Kagiso=6; Naspers=8; and Independent Newspapers=8.

Next, (in sections 5.3 to 5.12 to follow) the remaining secondary research questions will be discussed. Once completed, these serve as the compendium of secondary research questions that supported the author of this study in determining the nature of the South African news organisations' tweets. This in turn will allow the primary research question to be dealt with in the next chapter. Each secondary research question will be discussed in the same order in which they were listed in the opening chapter, section 1.5.2. Each secondary research question will form the title of each section to follow.

### **5.3 How many tweets were exclusively those of the (predefined) South African news organisations—in proportion to the total data-set?**

Referring also to Figure 4:

- 2 774 was to total number of records (i.e. tweets) that were published by all 52 of the South African news organisations.
- Of the total number (i.e. 376 708) of records (i.e. tweets) contained in the original data-set, 2 774 (or 0.74%) of the tweets were those of South African news organisations.
- The cumulative total number of followers for all 52 of the South African news organisation amounted to 7 449 325.

Observations from these statistics are:

- At 0.74%, South African news organisations' number of tweets are less than 1% of the total number of published tweets in the complete data-set. This is significantly small in proportion to the total volume of tweets for the entire data-set.
- By contrast, the total number of followers is significantly high for such a (relatively) small number of Twitter users—almost 7.5 million followers out of a total of 89.7 million followers (i.e. 89.7 million being the total number of followers belonging to the total number of Twitter users represented in the full data-set).

Figures 5 to 9 is a presentation of data visualisations depicting the number of records, followers and holding/shareholder details for each Twitter account. The purpose behind the study of the data in this section, is to establish possible ways in which certain totals of the data might feed into the section to follow. This section concludes with a brief discussion of the analysis and insights gained from a study of the data tables.

Next, observations evident in the data will be highlighted for each of the sub-categories of news organisations.

### 5.3.1 Data visualisations—observations and discussion

Broadcast					
Twitter account name	Number of Records	User Followers Count	Holding / Shareholder	Broadcast	Total
amliveonsafm	42	31 225	South African Broadcasting Corp. (SABC)		1
ANN7tv	183	45 552	Oakbay Investments		1
CapeTalk	44	99 794	Primedia		1
ECR_NewsWatch	7	69 387	TMG / Kagiso		1
eNCA	134	669 541	Hosken Consolidated Investments		1
etvSunrise	7	40 684	Hosken Consolidated Investments		1
GrootFM	2	14 395	GrootFM		1
JacaNews	171	110 716	TMG / Kagiso		1
MorningLiveSABC	1	79 501	South African Broadcasting Corp. (SABC)		1
POWER987News	141	28 282	MSG Afrika		1
pretorianews	1	6 928	Independent Newspapers		1
Radio702	60	313 425	Primedia		1
Radio2000_ZA	4	16 656	South African Broadcasting Corp. (SABC)		1
SABCNetwork	2	1 388	South African Broadcasting Corp. (SABC)		1
SABCNewsOnline	111	506 558	South African Broadcasting Corp. (SABC)		1
SABCNewsroom	44	4 634	South African Broadcasting Corp. (SABC)		1
SABCTVNews	27	5 265	South African Broadcasting Corp. (SABC)		1
safmdaylive	20	2 934	South African Broadcasting Corp. (SABC)		1
Safmnews	15	202 160	South African Broadcasting Corp. (SABC)		1
safmpmlive	25	19 362	South African Broadcasting Corp. (SABC)		1
SAfmRadio	14	47 146	South African Broadcasting Corp. (SABC)		1
	1055	2 315 534		21	21
Total tweets in data-set	376 708				
Percentage news organisations' tweets in relation to all tweets in data-set:	0,28%				

Figure 5—Broadcast category: number of records (tweets) and followers.

As seen in Figure 5, observations from the broadcast category are:

- 1 055 was to total number of records (i.e. tweets) that were published by the 21 South African news organisations in this category.
- Of the total number (i.e. 376 708) of records (i.e. tweets) contained in the original data-set, 1 055 (or 0.28%) of the tweets were those of the relevant news organisations in this category.
- The cumulative total number of followers for the 21 South African news organisations in this category amounted to 2 315 534.

Twitter account name	Number of Records	User Followers Count	Holding / Shareholder	Independent Newspapers	Total
CapeTimesSA	21	18 474	Independent Newspapers	1	
ilisolezwe	4	1 242	Independent Newspapers	1	
IOL	64	156 156	Independent Newspapers	1	
mojolOL	41	765	Independent Newspapers	1	
SundayTribuneSA	2	3 313	Independent Newspapers	1	
TheCapeArgus	78	21 627	Independent Newspapers	1	
TheMercurySA	5	70 439	Independent Newspapers	1	
TheWeekendArgus	43	2 581	Independent Newspapers	1	
	258	274 595		8	8
Total tweets in data-set	376 708				
Percentage news organisations' tweets in relation to all tweets in data-set:	0,07%				

Figure 6—Independent category: number of records (tweets) and followers.

As seen in Figure 6, observations from the Independent Newspapers category are:

- 258 was to total number of records (i.e. tweets) that were published by the 8 South African news organisations in this category.
- Of the total number (i.e. 376 708) of records (i.e. tweets) contained in the original data-set, 258 (or 0.07%) of the tweets were those of the relevant news organisations in this category.
- The cumulative total number of followers for the 8 South African news organisations in this category amounted to 274 595.

Twitter account name	Number of Records	User Followers Count	Holding / Shareholder	Naspers	Total
City_Press	126	562 220	Naspers	1	
dailysunsa	4	54 043	Naspers	1	
Die_Burger	12	39 231	Naspers	1	
MyNews24	9	90 214	Naspers	1	
Netwerk24	31	102 115	Naspers	1	
Netwerk24Berig	415	8 454	Naspers	1	
News24	32	1 438 736	Naspers	1	
Sonkoerant	26	8 150	Naspers	1	
	655	2 303 163		8	8
Total tweets in data-set:	376 708				
Percentage news organisations' tweets in relation to all tweets in data-set:	0,17%				

Figure 7—Naspers<sup>10</sup> category: number of records (tweets) and followers.

As seen in Figure 7, observations from the Naspers category are:

- 655 was the total number of records (i.e. tweets) that were published by the 8 South African news organisations in this category.
- Of the total number (i.e. 376 708) of records (i.e. tweets) contained in the original data-set, 655 (or 0,17%) of the tweets were those of the relevant news organisations in this category.
- The cumulative total number of followers for the 8 South African news organisations in this category amounted to 2 303 163.

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<sup>10</sup> The naming convention for this study adopts the official name of the holding/shareholder company name. In this case Naspers is the holding company of Media 24. Mostly, Media 24's news products have been the focus of the Naspers category.

Twitter account name	Number of Records	User Followers Count	Holding / Shareholder	TMG / Kagiso	Total
BDliveSA	2	125 420	TMG / Kagiso	1	
Dispatch_DD	19	13 809	TMG / Kagiso	1	
HeraldPE	16	16 426	TMG / Kagiso	1	
SowetanLIVE	4	310 268	TMG / Kagiso	1	
TimesLIVE	13	472 447	TMG / Kagiso	1	
TimesLiveNews	7	15 480	TMG / Kagiso	1	
	61	953 849		6	6
Total tweets in data-set:	376 708				
Percentage news organisations' tweets in relation to all tweets in data-set:	0,02%				

Figure 8—TMG/Kagiso category: number of records (tweets) and followers.

As seen in Figure 8, observations from the TMG/Kagiso category are:

- 61 was to total number of records (i.e. tweets) that were published by the 6 South African news organisations in this category.
- Of the total number (i.e. 376 708) of records (i.e. tweets) contained in the original data-set, 61 (or 0,02%) of the tweets were those of the relevant news organisations in this category.
- The cumulative total number of followers for the 6 South African news organisations in this category amounted to 953 849.



Others					
Twitter account name	Number of Records	User Followers Count	Holding / Shareholder	Others	Total
ANN7Reporter	1	7 337	Oakbay Investments	1	
dailymaverick	60	178 242	Not available in source - self-owned: Daily Maverick	1	
ewnreporter	179	271 505	Primedia	1	
ewnupdates	26	461 750	Primedia	1	
mailandguardian	10	449 780	Mail and Guardian	1	
The_New_Age	151	193 267	Oakbay Investments	1	
TheCitizen_News	33	17 160	Caxton	1	
thedailyvox	279	6 964	Not available in source	1	
zanews	6	16 179	Not available in source - self-owned: ZANews	1	
	745	1 602 185		9	9
Total tweets in data-set	376 708				
Percentage news organisations' tweets in relation to all tweets in data-set:	0,20%				

Figure 9—Others category: number of records (tweets) and followers.

As seen in Figure 9, observations from the Others category are:

- 745 was to total number of records (i.e. tweets) that were published by the 9 South African news organisations in this category.
- Of the total number (i.e. 376 708) of records (i.e. tweets) contained in the original data-set, 745 (or 0,20%) of the tweets were those of the relevant news organisations in this category.
- The cumulative total number of followers for the 6 South African news organisations in this category amounted to 1 602 185.

### 5.3.2 Analysis and insights obtained

Overall, based on the observations in Figures 5 – 9, it is evident that each category contributed to a greater or lesser degree, to the overall number of tweets of all South African news organisations. Similarly, when viewed against the number of followers for each category, comparative conclusions can be made.

1. Broadcast at 1 055 tweets, contributing 0,28% of the tweets, with 2 315 534 followers.
2. Others at 745 tweets, contributing 0,20% of the tweets, with 1 602 185 followers.
3. Naspers at 657 tweets, contributing 0,17% of the tweets, with 2 303 163 followers

4. Independent Newspapers at 258 tweets, contributing 0,28% of the tweets, with 274 595 followers.
5. TMG/Kagiso at 61 tweets, contributing 0,02% of the tweets, with 953 849 followers.

The most striking finding to be gained from the aforementioned observation, is the fact that although some categories may be contributing less in number of tweets, their follower numbers<sup>11</sup> are a lot greater. In short, what this implies is that less tweets does not necessarily mean that there was less influence taking place on the networked public sphere, by a particular set of Twitter users. Rather, despite a small amount of tweets being published, many followers still exposed to tweets. To illustrate this point: 1000 tweets seen by 1 person is far less influential on the networked public sphere, than 1 tweet being seen by a 1000 people. This conclusion feeds into the analysis for the question to follow next.

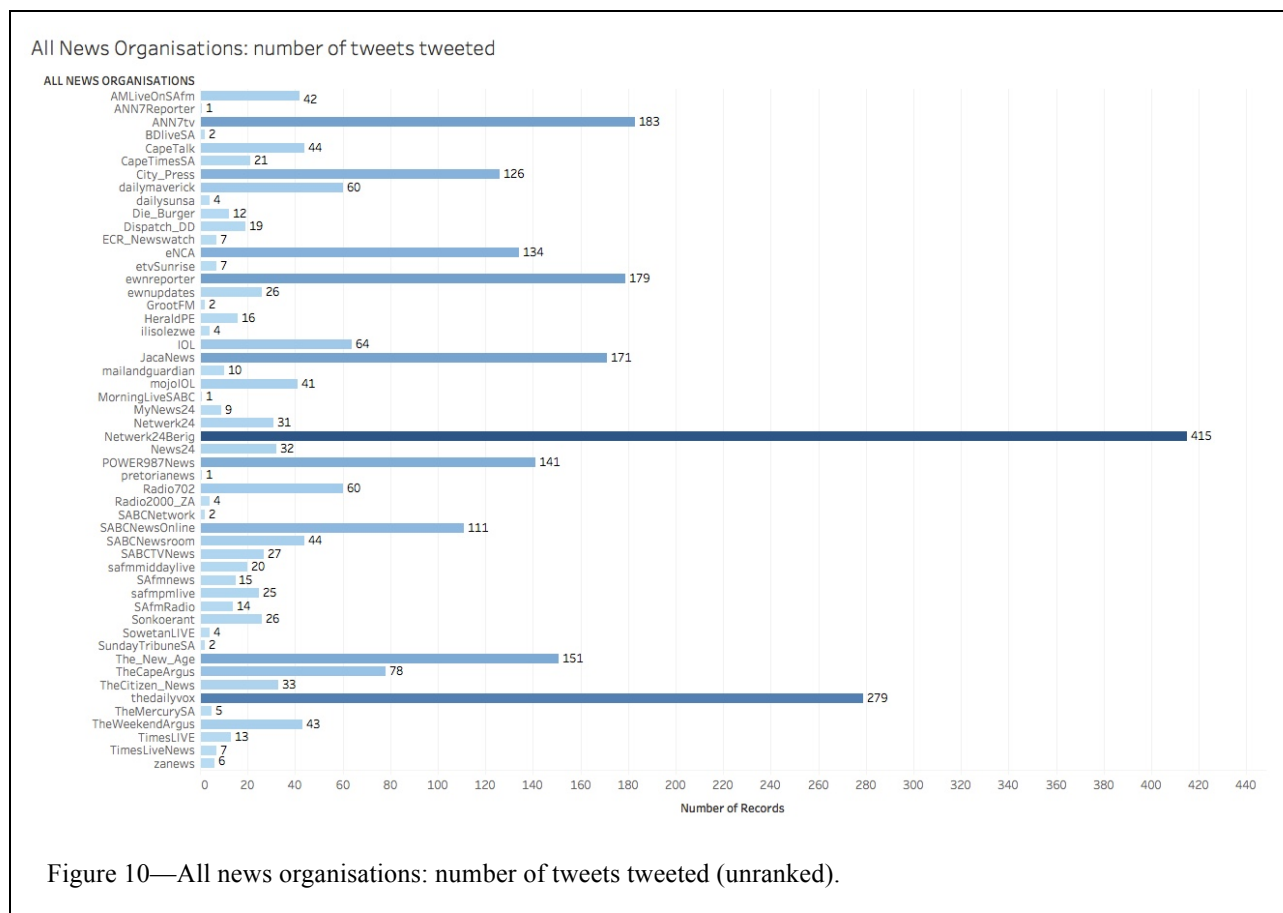
#### **5.4 In relation to tweets tweeted, how many followers were there for each of the South African news organisations?**

To support observations and discussion for this section, two data visualisations will be presented (see Figures 10 and 11 to follow). Figure 10 is a visualisation depicting all unranked news organisations and the number of tweets that each published. Figure 11 is a visualisation depicting all unranked news organisations and the number of followers that each has. Figures 12 to 16 is a presentation of data visualisations depicting a rank-ordered set of graphs comparing news organisations' tweet data as compared to news organisations' followers. This section concludes with a brief discussion of the analysis and insights gained from a study of the data visualisations.

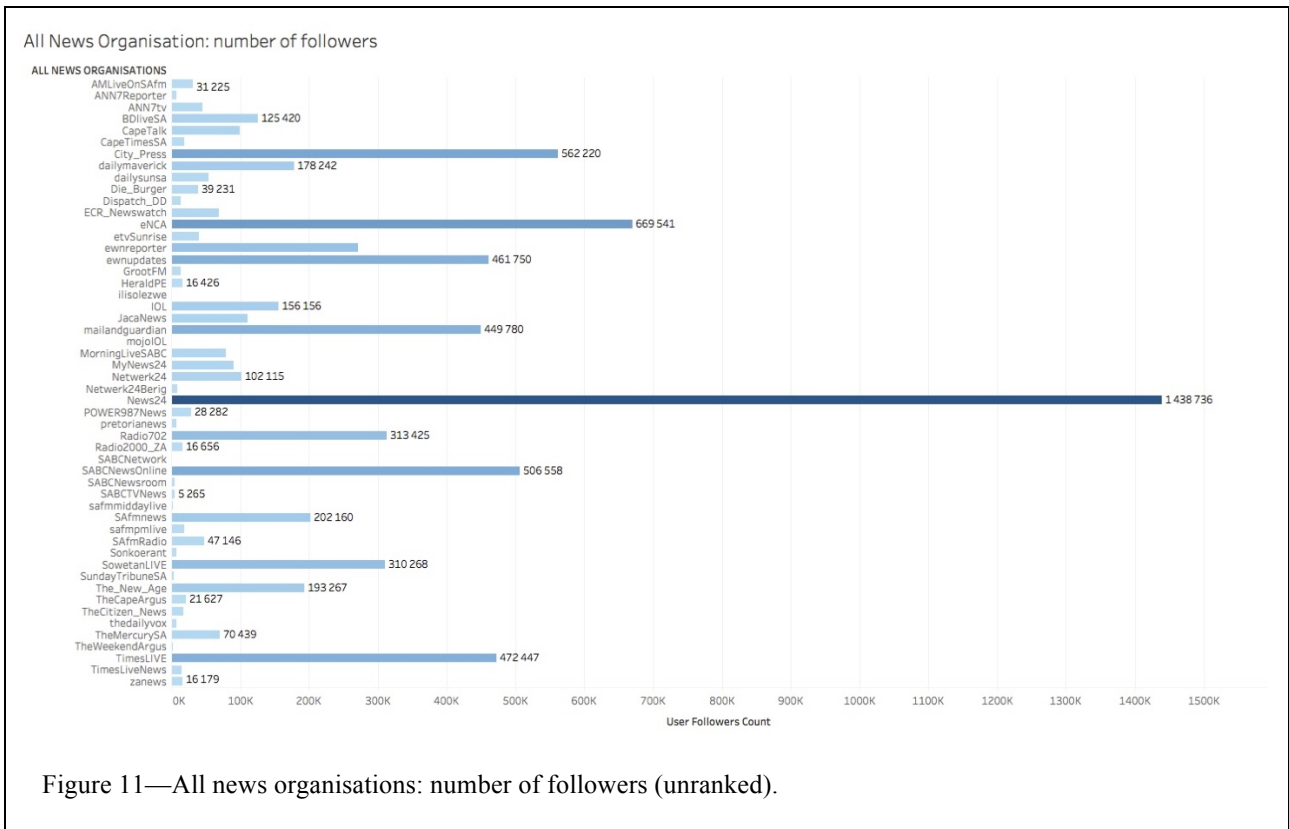
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<sup>11</sup> Note: the author of this study draws attention to the fact that the number of followers does not equate to the number of active readers. As such, the number of followers may be better understood to be a measure of potential readers.

### 5.4.1 Data visualisations—observations and discussion

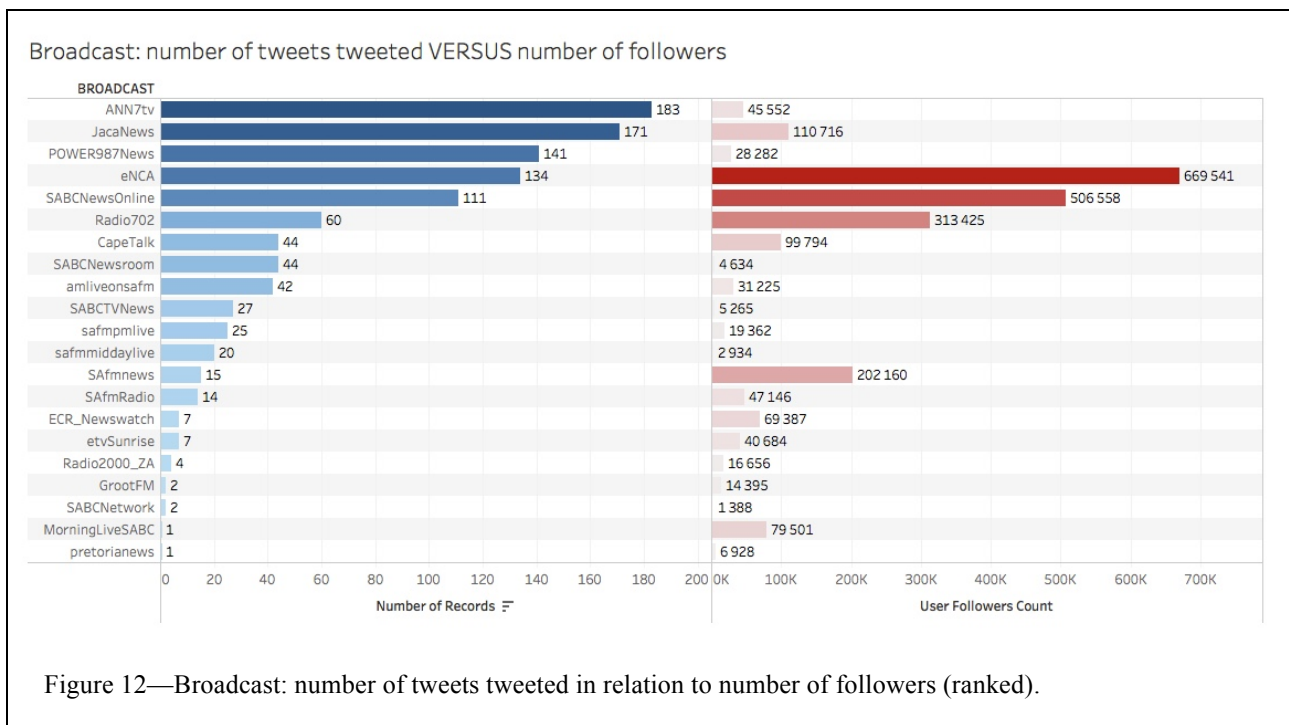


As seen in Figure 10, most notable in terms of number of tweets published are those Twitter accounts in the darker shades of blue. This visualisation is unranked. From the horizontal blue bars, it is evident that the highest number of tweets emanated from the Twitter user *Netwerk24Berig*, with a total of 415 tweets, followed by *thedailyvox*, with a total of 279 tweets.



As seen in Figure 11, most notable in terms of number of followers, are those Twitter accounts in the darker shades of blue. This visualisation is unranked. From the horizontal dark-blue bar, it is evident that the Twitter user with the greatest number of Followers (by a considerable margin), is that of *News24*, with 1 438 736. Several medium-blue horizontal bars indicate that quite a number of mid-range Twitter users had between 300 000 to 700 000 Followers: for example, that of *City\_Press* with 562 220 Followers, *eNCA* with 669 541 Followers, *ewnupdates* with 461 750 Followers, *mailandguardian* with 449 780 followers, *Radio702* with 313 425 followers, *SABCNewsOnline* with 506 558 followers, *SowetanLIVE* with 310 268 followers, and *TimesLIVE* with 472 447 followers.

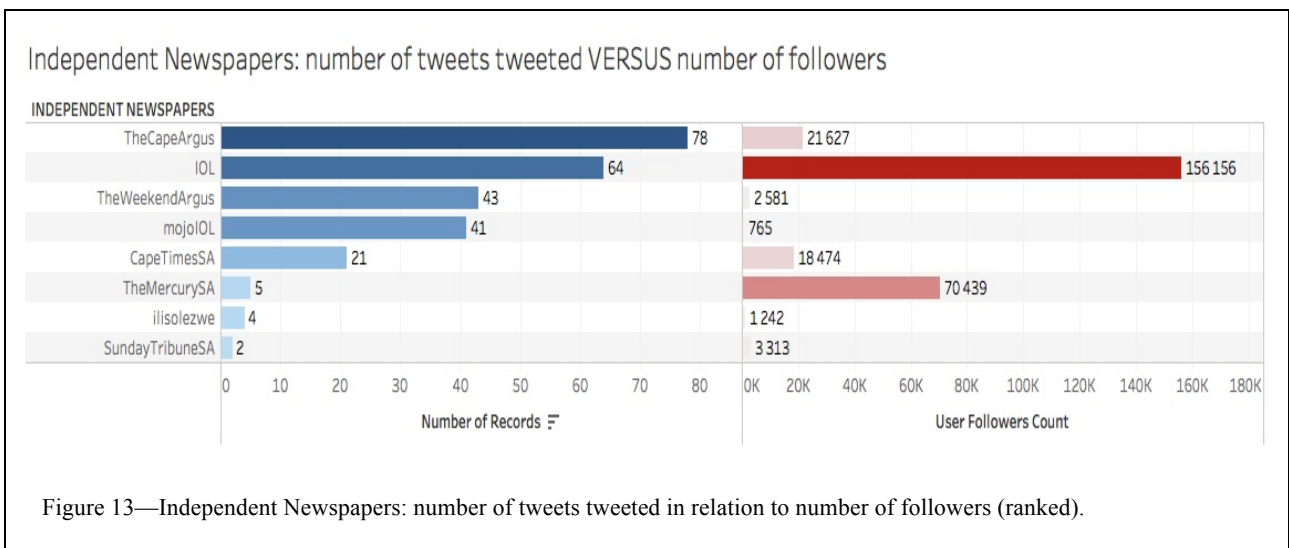
Next, a series of data visualisations for each category, depicts rank-ordered graphs comparing news organisations’ tweet data in relation to news organisations’ followers.



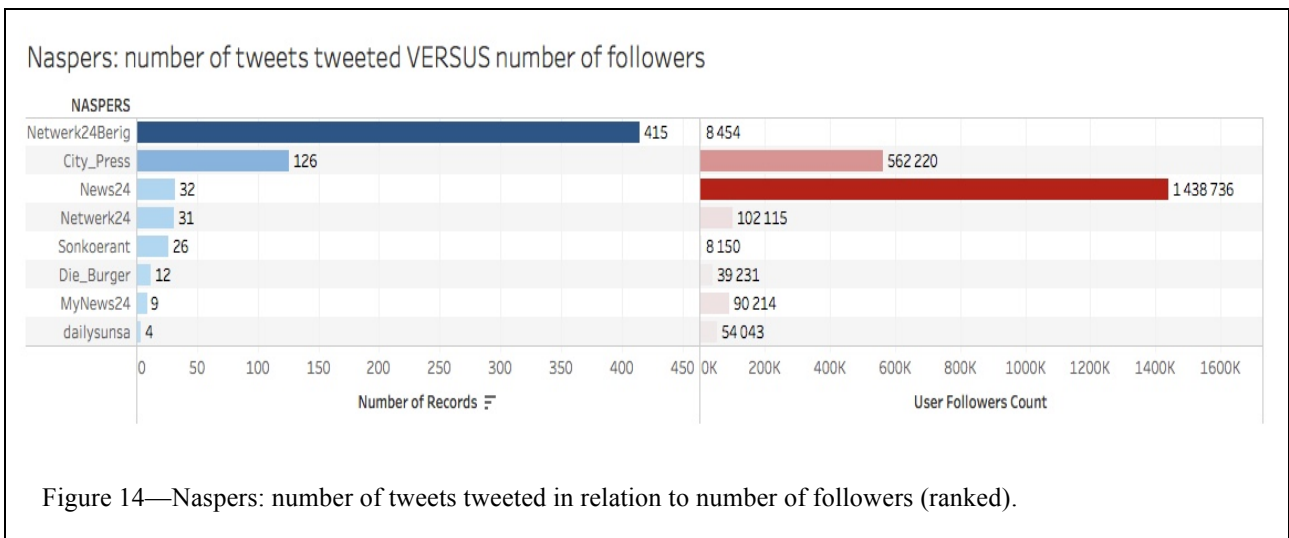
As seen in Figure 12, the focus is on the total number of tweets in relation to the number of followers for each Twitter user. The tweets column has been ranked from greatest to smallest. The darker hues of each colour serve to emphasise the most notable values for each—tweets (in blue) and followers (in red).

Looking at the number of tweets alone, most notable for the Broadcast category are the first 5 Twitter users: *ANN7tv* (183), *JacaNews* (171), *POWER987News* (141), *eNCA* (134), *SABCNewsOnline* (111) and *Radio702* (60). What is interesting, is the fact that users of *eNCA*, *SABCNewsOnline*, and *Radio702* have the highest number of followers for this category. This would suggest that these Twitter users' indegree<sup>12</sup> influence on the networked public sphere was more significant than that of the top 3 Twitters users (i.e. *ANN7tv*, *JacaNews* and *POWER987News*. To a lesser extent, this principle would apply to *Safmnews*, *ECR\_Newswatch* and *MorningLiveSABC* too).

<sup>12</sup> "Indegree" influence (Cha, Haddadi, Benevenuto & Gummadi, 2010)—as discussed in section 2.4 of Chapter 2



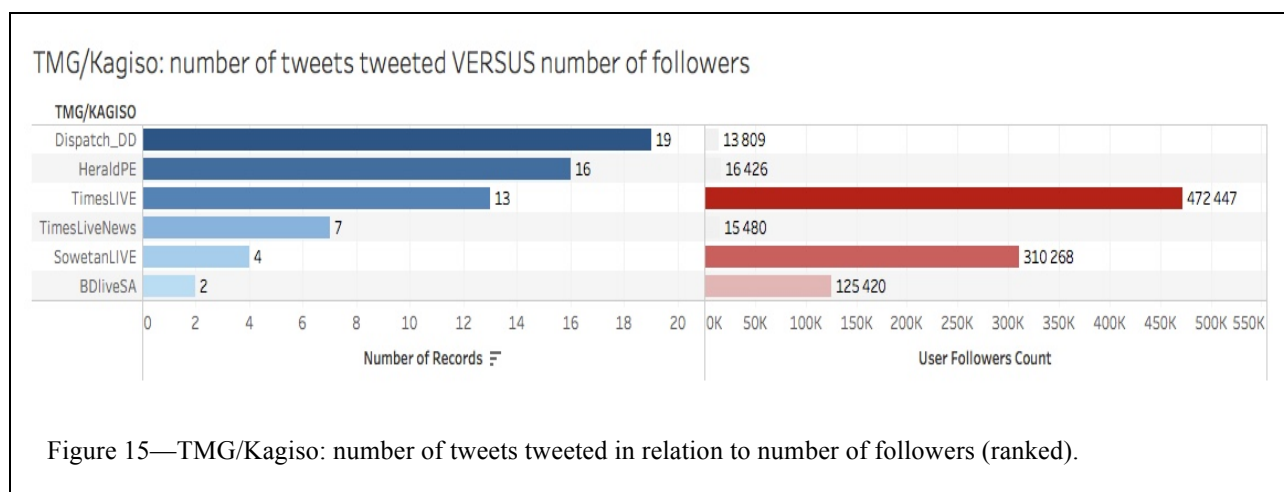
On the same principle as the discussion from the preceding Broadcast category (Figure 12), as seen in Figure 13, looking at the number of tweets alone, most notable for the Independent Newspapers category are Twitter users: *TheCapeArgus* (78), *IOL* (64), *TheWeekendArgus* (43) and *mojoIOL* (41). However, when factoring in the number of followers, most notable for indegree influence, are Twitter users: *IOL* (64 tweets in relation to 156 156 followers) and *TheMercurySA* (5 tweets in relation to 70 439 followers).



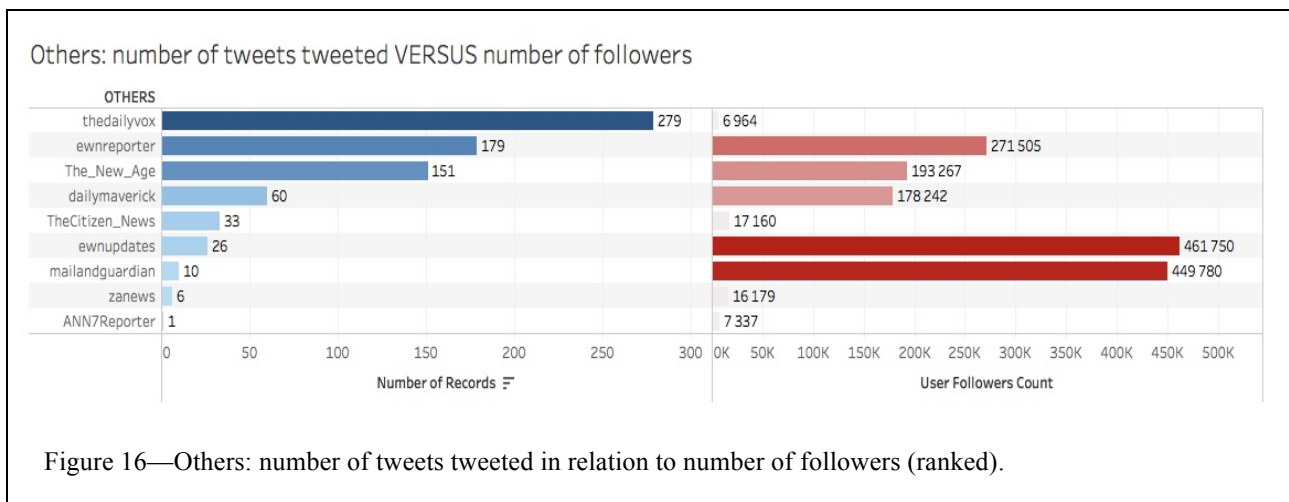
As seen in Figure 14, looking at the number of tweets alone, most notable for the Naspers category are Twitter users: *Netwerk24Berig* (415) and *City\_Press* (126). However, when factoring in the number of followers, most notable for indegree influence, are Twitter users: *News24* (32 tweets in relation to 1 438 736 followers), *City\_Press* (126 tweets in relation to 562 220 followers),

*Netwerk24* (21 tweets in relation to 102 115 followers) and *MyNews24* (9 tweets in relation to 102 115 followers).

In an effort to seek out ways of applying such observations and findings to the possible future operational strategy of a news organisation, the following example is given: the Twitter accounts of *Netwerk24* and *Netwerk24Berig* (both belonging to the same news organisation), could be combined. More indegree influence is likely to be leveraged from the use of the *Netwerk24* Twitter account (with its significantly larger number of followers: 102 115) than the *Netwerk24Berig* Twitter account with its somewhat meagre number of followers: 8 454).



As seen in Figure 15, looking at the number of tweets alone, most notable for the TMG/Kagiso category are Twitter users: *Dispatch\_DD* (19), *HeraldPE* (16) and *TimeLIVE* (13). However, when factoring in the number of followers, most notable for indegree influence, are Twitter users: *TimesLIVE* (13 tweets in relation to 472 447 followers), *SowetanLIVE* (4 tweets in relation to 310 268 followers) and *BDLiveSA* (2 tweets in relation to 125 420 followers).



As seen in Figure 16, looking at the number of tweets alone, most notable for the Others category are Twitter users: *thedailyvox* (279), *ewnreporter* (179) and *TheNewAge* (151). However, when factoring in the number of followers, most notable for indegree influence, are to be seen in two distinct sub-groups:

Group 1 (dark red hue): Twitter users: *ewnupdates* (26 tweets in relation to 461 750 followers) and *mailandguardian* (10 tweets in relation to 449 780 followers).

Group 2 (medium red hue): Twitter users: *ewnreporter* (179 tweets in relation to 271 505 followers), *The\_New\_Age* (151 tweets in relation to 193 267 followers) and *dailymaverick* (60 tweets in relation to 178 242 followers).

#### 5.4.2 Analysis and insights obtained

In short, the data-visualisations strongly suggest that the publishing of a larger volume of tweets is not necessarily the optimum recipe for impacting the Twitter networked public sphere. Rather, a combination of the number of tweets in relation to the number of followers gives rise to a greater level of indegree influence being achieved on the Twitter networked public sphere. As was mentioned in the discussion for Figure 14 (citing the case of Twitter users *Netwerk24* and *Netwerk24Berig* with both Twitter accounts belonging to the same news organisation), in an effort to strengthen indegree influence, options exist to alter a news organisation's operational social media publishing strategy, by combining multiple Twitter accounts, such that maximum leverage from the use of certain Twitter accounts might be gained.



## 5.5 Who was being mentioned in the news organisations' tweets?

To support observations and discussion for this section, Figure 17 presents a data visualisation (i.e. “word cloud”) depicting all news organisations' Twitter @Mentions, which broadly highlights the most notable Twitter users who were mentioned in all news organisations tweets. Figures 18 to 21 presents a tabular breakdown, per category, of the @Mentions data that was used to generate this “word cloud”. From a methodological perspective, it is noted that the @Mentions included in the data were featured in either the original tweets or in retweets. Therefore, for this study, no differentiation was made between @Mentions featured in original tweets versus retweets only. This section concludes with a brief discussion of the analysis and insights gained from a study of the data visualisations.

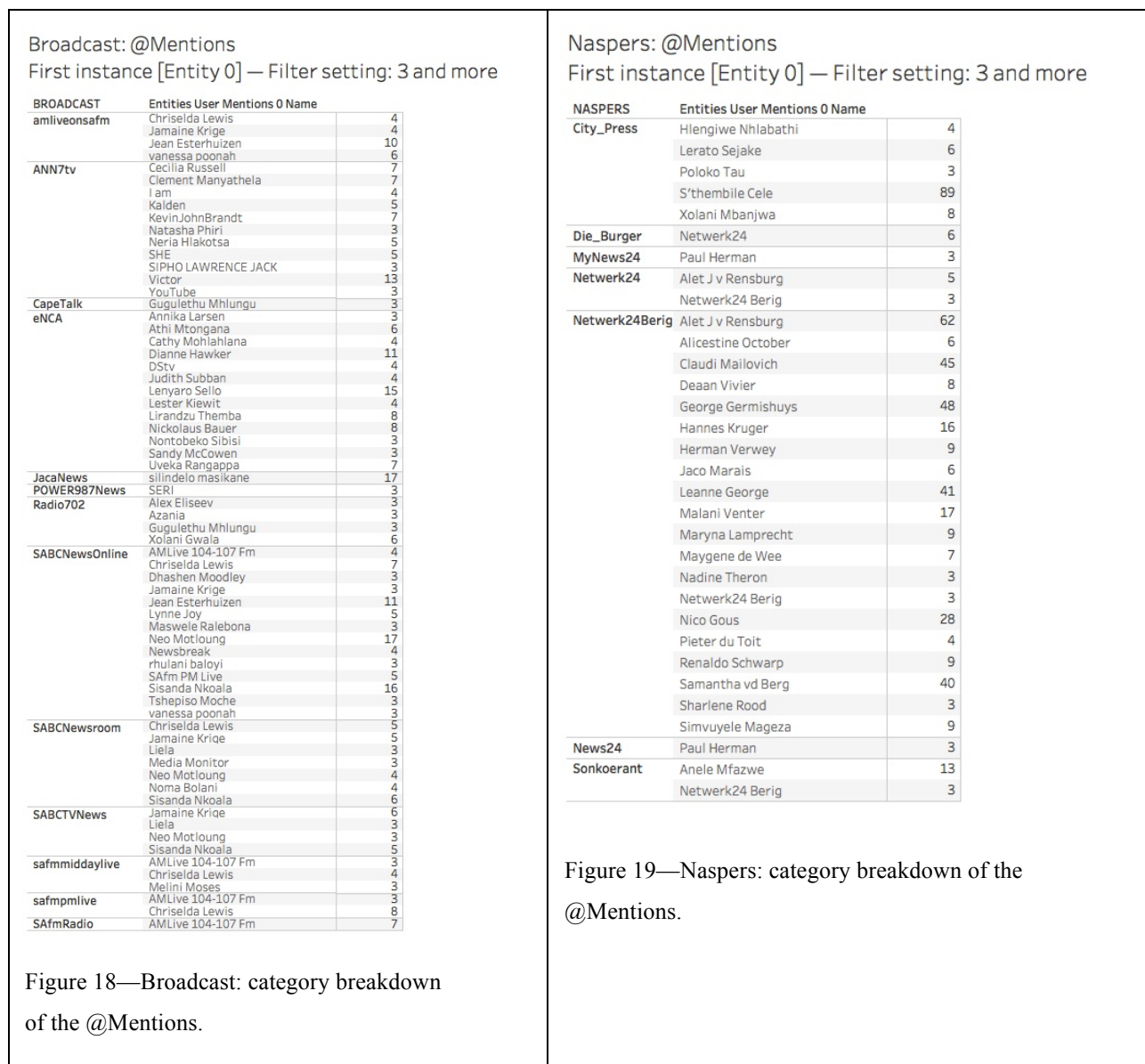
### 5.5.1 Data visualisations—observations and discussion



As seen in Figure 17, the most notable observation is the appearance of a vast assortment of personal names. Upon earlier investigation by the author of this study, it was determined that mostly, these personal names were those of journalists working for the news organisation whose Twitter account published the tweet in which they were being mentioned. The larger-sized words indicate the greater

number of times that a particular Twitter user—with their unique @Mention identifier—was mentioned in a news organisation’s tweets. For example, *S’Thembile Cele*, *Alet J v Rensburg*, *Claudi Mailovich*, *George Germishuys*, *Sisanda Nkoala*, *Leanne George* were some of the Twitters users being mentioned the most. In addition, some Twitter users were not personal names, but rather were names of news organisations. For example: *AMLive 104-107Fm*, *IOL News*, *Netwerk24Berig*, *Safm PM Live*, *Cape Argus*. Consequently, at this stage of the data analysis, it is most evident that two broad sets of Twitter users were mentioned: personal names of journalists, and to a lesser extent, names of news organisations.

Next, Figures 18 and 19 is presented.

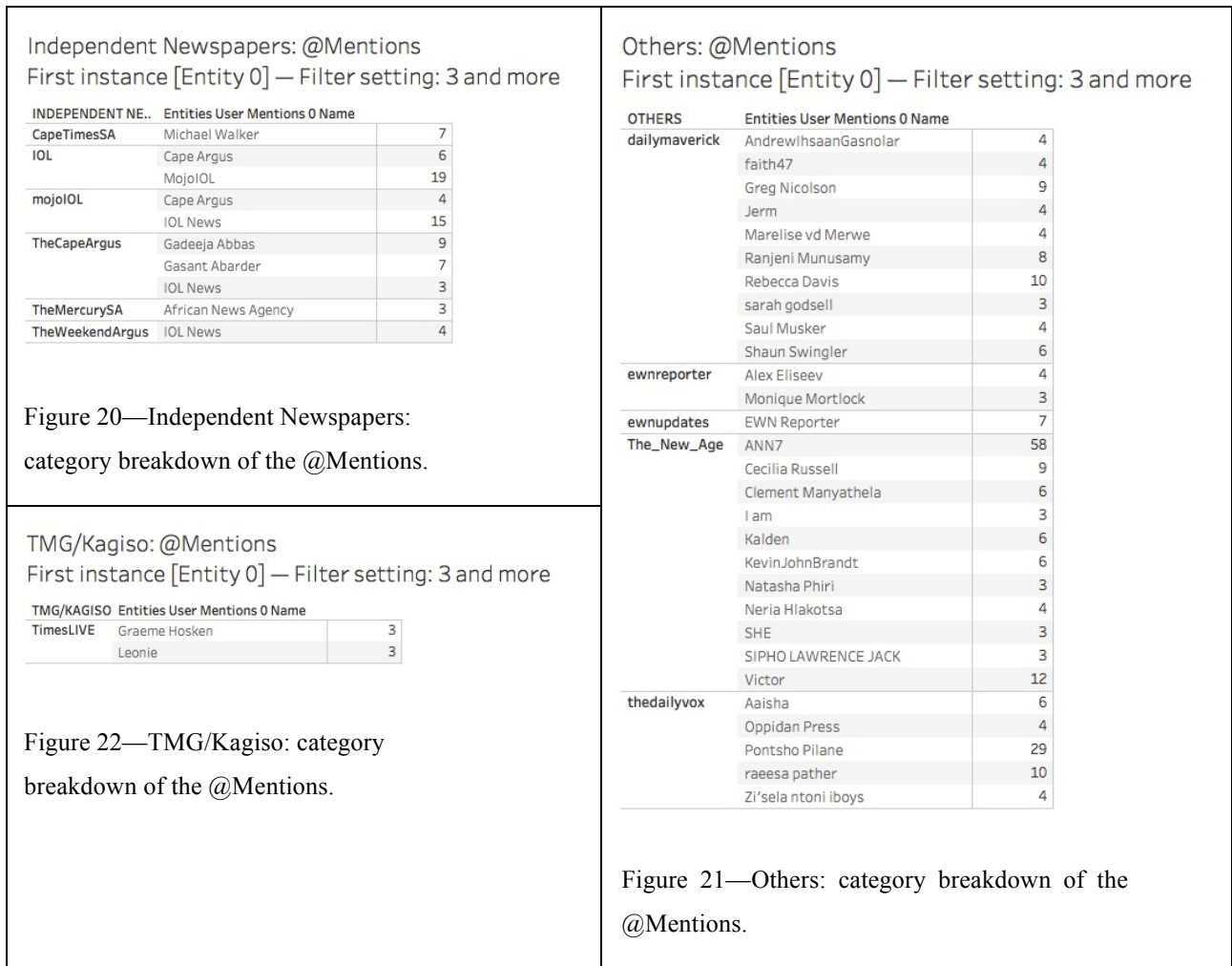


For Figures 18 and 19 (above) as well as for Figures 20 to 22 (to follow), the tables were generated in *Tableau*<sup>®</sup> using a filter setting of 3 @Mentions or more. This facilitated the compact display of @Mentions that were regarded as most relevant to the ensuing data-analysis. In other words, @Mentions that were only featured once or twice were filtered out (i.e. excluded) of these summary tables.

Notable observations from Figures 18 and 19 are:

- Twitter users *ANN7tv*, *eNCA*, *SABCNewsOnline*, *City\_Press* and *Netwerk24Berig* used a greater number of different users' @Mentions. For example, most notably so (in Figure 19), *Netwerk24Berig* mentioned 20 different users.
- Interspersed mainly between personal names of people (via their @Mentions), the occasional news organisation (via its @Mention) was mentioned. Interestingly, in its own tweets, some news organisations cross-mentioned other news organisations: for example, in Figure 18, *SABCNewsOnline* cross-mentioned *AMLive 104-107 Fm* (4 times), and in Figure 19 *Die-Burger* cross-mentioned *Netwerk24* (6 times). In Figures 18 and 19, a few further instances of cross-mentioning is evident.

Next, Figures 20, 21 and 22 are presented.



Notable observations from Figures 20, 21 and 22 are:

- In Figure 20, that data suggest that Independent Newspapers cross-mentioned Twitter user accounts on many instances. For example, *IOL* mentioned *Cape Argus* (6 times) and *MojoIOL* (19 times). *MojoIOL* mentioned *Cape Argus* (4 times) and *IOL News* (15 times). Notably so, these were references to others' Twitter accounts.
- In Figure 21, for the Others category, *The\_New\_Age* mentioned *ANN7* (58 times). This is significant because it is a good example of what might be considered to be a strong case for self-promotion (i.e. marketing/PR) of one of the news organisation's sister news organisations—in this case, The New Age promoting its television station ANN7.

- In Figure 22, for the TMG/Kagiso category, apart from minimal @Mention activity, nothing of significance is evident. This is mainly attributed to the fact that of all the categories, this category posted the least amount of total tweets—as evidenced also in Figure 15.

### 5.5.2 Analysis and insights obtained

The data-visualisations for this section reveal two primary ways in which news organisations made use of the @Mention. First, @Mentions were seemingly used to draw attention to (i.e. give exposure to) news organisations’ own journalists. Second, by cross-mentioning other news organisations’ Twitter accounts, news organisations exploited the use of Mention<sup>13</sup> influence for further impact on the networked public sphere. Based on the two primary ways in which news organisations used @Mentions, this does expose opportunity for further focused research to be conducted, specifically related to the nuanced use of @Mentions. For example, such research could be undertaken by network-mapping instances of journalists’ @Mentions to their own (externally-linked) content on a news organisation’s website, via the embedded URL contained in tweets in which a particular journalist has been mentioned.

### 5.6 What additional hashtags were being used in the news organisations’ tweets?

To support observations and discussion for this section, Figure 23 presents a data visualisation (i.e. “word cloud”) depicting the most prominent additional hashtags being used in news organisations’ tweets. Figures 24 to 28 presents a series of horizontal bar-graph visualisations for each of the categories.

Next, Figure 23 is presented.

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<sup>13</sup> “Mention” influence (Cha *et al.*, 2010:12)—as discussed in section 2.4 of chapter 2

### 5.6.1 Data visualisations—observations and discussion



As seen in Figure 23, the most notable observation is the assortment of different hashtags. Undoubtedly, *FeesMustFall* was the most prominent. From a methodological perspective, it must be noted that, for *FeesMustFall*, several other character-variations of the hashtag were combined for the analyses in Figures 24 to 28 that follow. For example, “FeesMustFall”, “feesmustfall”, “FEESMUSTFALL”, “Feesmustfall”, etc., were all combined to form a single measure for this particular hashtag. This was necessary because *Tableau*<sup>®</sup> is case-sensitive in its treatment of certain data elements such as this. From a methodological perspective, for Figures 24 to 28 the visualisations were generated with a filter setting of 3 #hashtags or more. #Hashtags that were only featured once or twice were filtered out (i.e. excluded).

Next, each of Figures 24 to 28 will be dealt with.

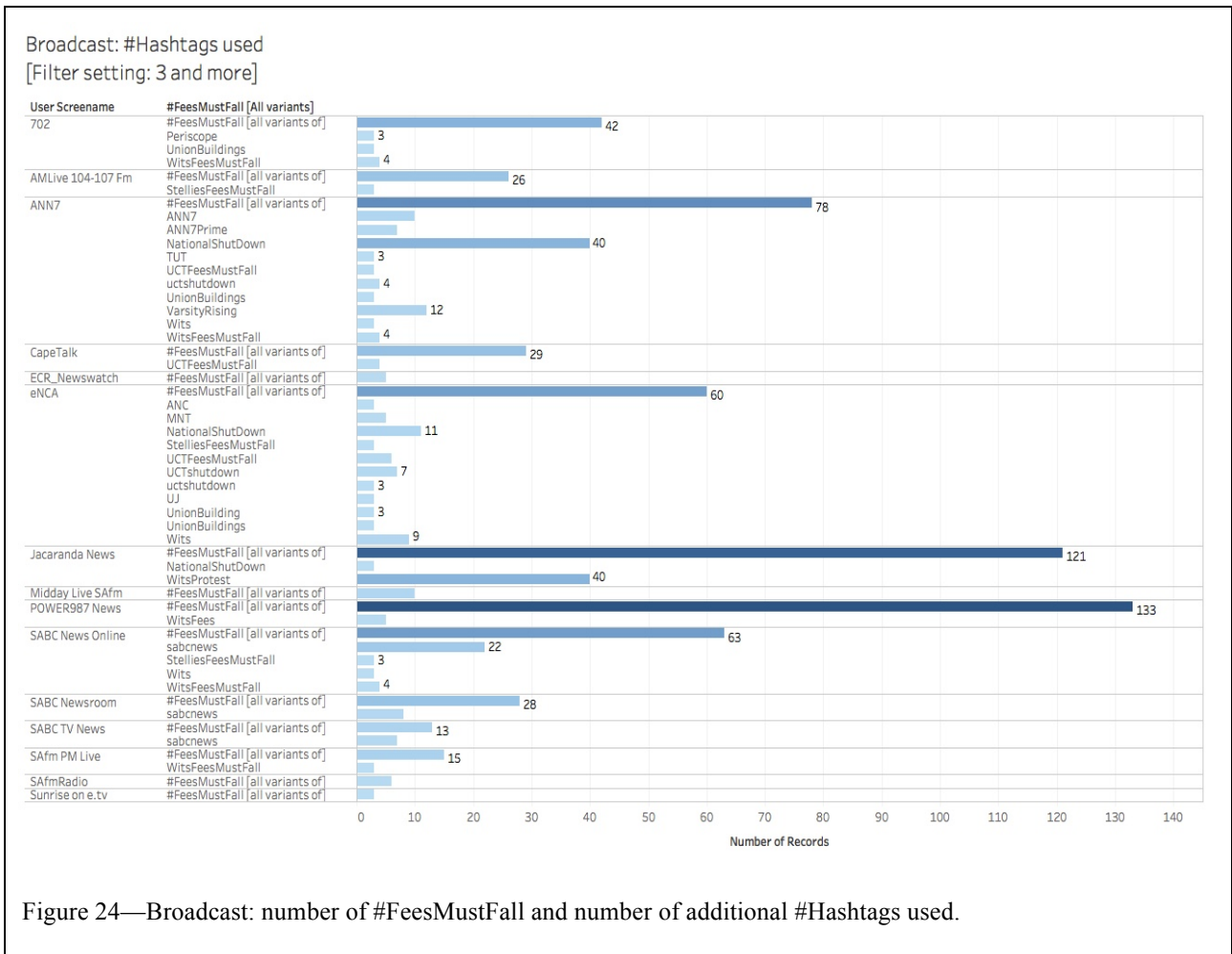
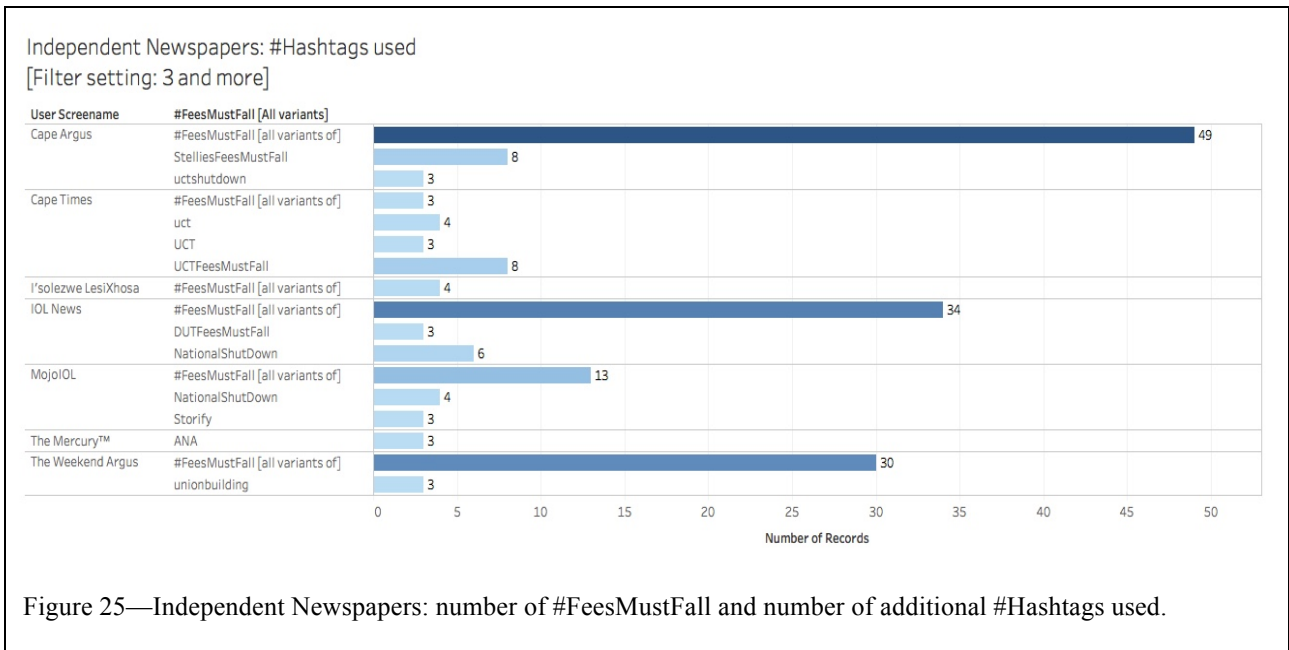


Figure 24—Broadcast: number of #FeesMustFall and number of additional #Hashtags used.

As seen in Figure 24, for the Broadcast category, most Twitter users' use of #FeesMustFall (in some variant thereof) was the greatest. For example, *Power987 News* used #FeesMustFall (133 times) and *Jacaranda News* used #FeesMustFall (121 times). What is interesting, however, is the use of secondary hashtags. Most prominent for this category, are users such as *ANN7* (which used 10 additional hashtags) and *eNCA* (which used 11 additional hashtags). What these hashtags are can be seen in Figure 24.



As seen in Figure 25, for the Independent Newspapers category, the same pattern as the previous category is repeated: the use of *#FeesMustFall* was the greatest for most users. A notable exception was with the *Cape Times* which used the hashtag *UCTFeesMustFall* the most (8 times) versus *#FeesMustFall* at only (3 times). The use of secondary hashtags was not that prominent for Twitter users in this category.



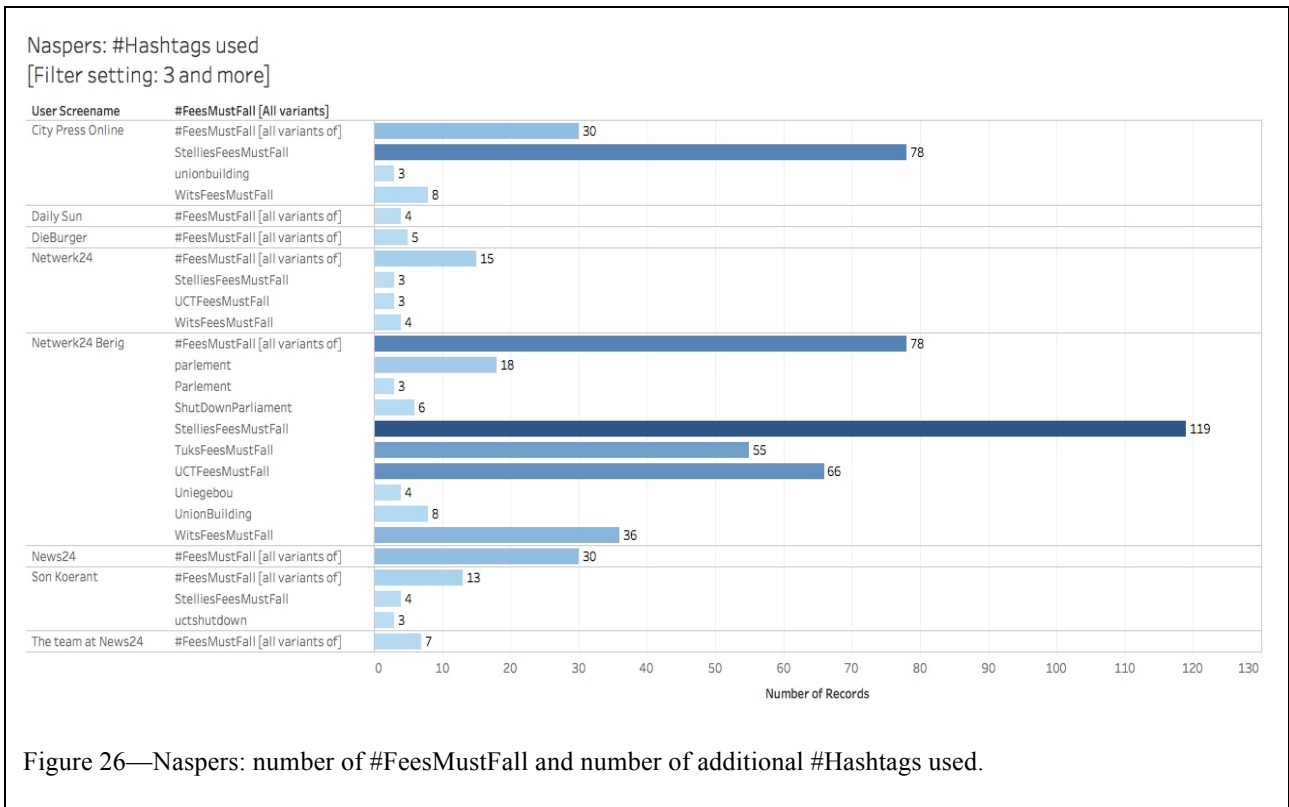
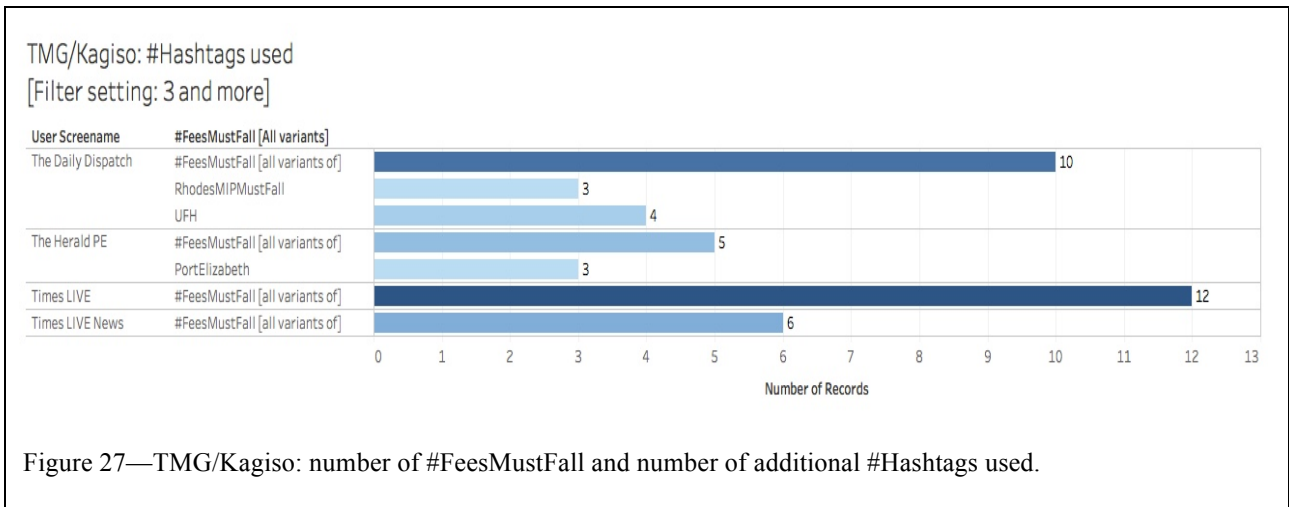
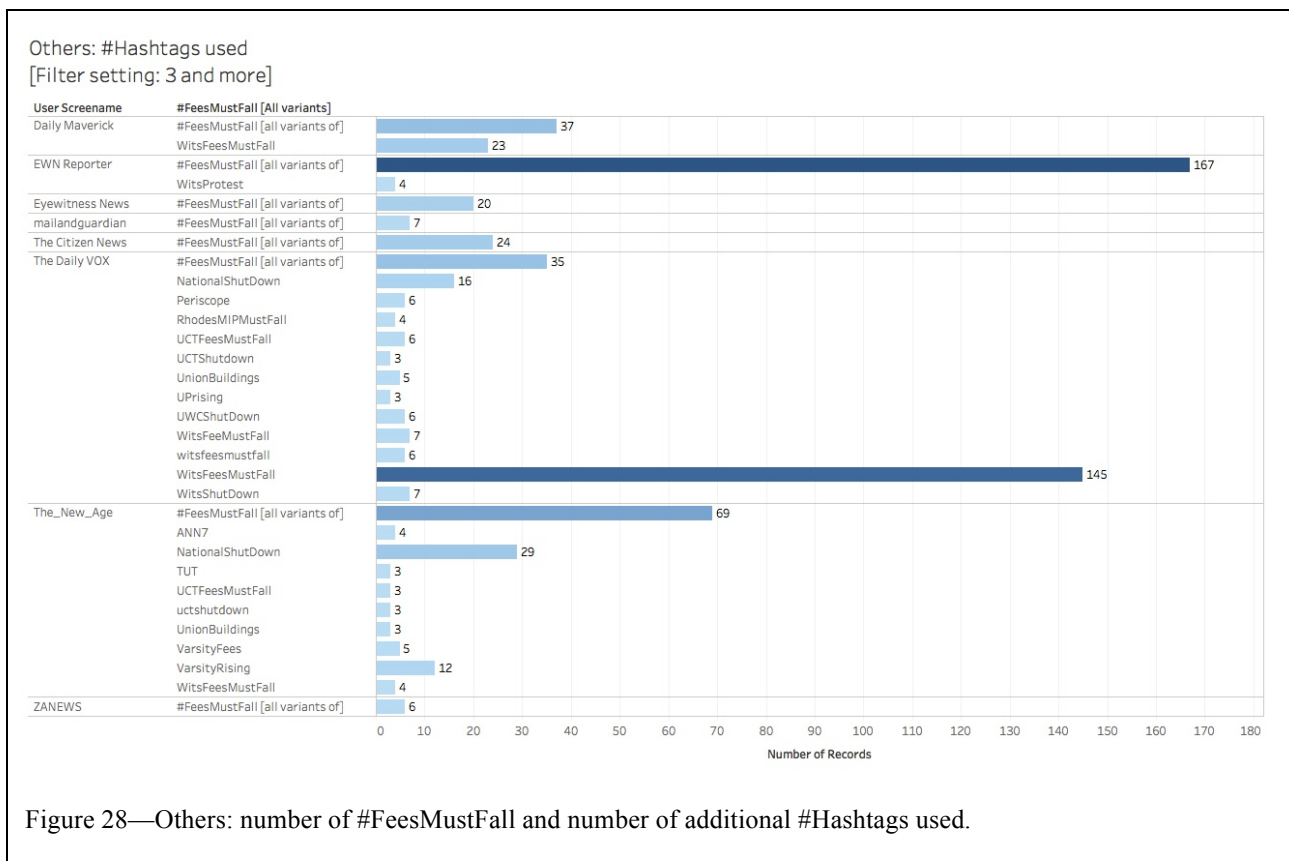


Figure 26—Naspers: number of #FeesMustFall and number of additional #Hashtags used.

As seen in Figure 26, for the Naspers category, the use of #FeesMustFall was not the most popular choice of hashtag used for all users. In the case of *City Press Online*, the hashtag *StelliesFeesMustFall* (used 78 times) was favoured over that of *#FeesMustFall* (used only 30 times). Similarly, *Netwerk24Berig* focused on the use of *StelliesFeesMustFall* (used a significant 119 times) over that of *#FeesMustFall* (used only 78 times). Other hashtags which were also prominently used by *Netwerk24Berig* were *UCTFeesMustFall* (used 66 times), *TuksFeesMustFall* (used 55 times) and *WitsFeesMustFall* (used 36 times).



As seen in Figure 27, for the TMG/Kagiso category, the use of #FeesMustFall was most prominently used. Owing to the small amount of tweets published in this category, nothing else of noteworthy prominence was observed.



As seen in Figure 28, for the Others category, in most cases the *#FeesMustFall* hashtag was the greatest for most users. For *ewnreporter* the use of *#FeesMustFall* was a significant 167 times. However, with *The Daily VOX* the use of *WitsFeesMustFall* was greatest, at a significant 145 times.

### 5.6.2 Analysis and insights obtained

The data-visualisations for this section suggest that not all categories of news organisations shared a unanimous strategy involving the primary use of *#FeesMustFall*. For example, as mentioned with Figure 26, with the Naspers category, alternative hashtag usage was preferred over that of *#FeesMustFall*. In this study, possible reasons for this cannot be empirically determined. However, what these observations in the data do suggest, is that different news organisations employed different strategies of hashtag usage. For example, in the case of the discussion for Figure 26, with the Naspers category, the alternate use of other hashtags strongly suggests that some news organisations (via their unique Twitter accounts) were focusing their topics of engagement on issues relating to the most-used tweets. For example, in the case of *City Press Online* and *Netwerk24Berig*, their focus was undoubtedly on the posting of news content relevant to fees must fall related activities taking place at Stellenbosch University (i.e. via the *StelliesFeesMustFall* hashtag). As a further observation, it is

interesting to note that the *City Press* publication chose to focus on issues at Stellenbosch University. However, for this study it was not empirically possible to provide answers as to why the *City Press* elected to knowingly (or unknowingly) do so. Whether this was intentional or not would need to be ascertained through secondary qualitative research questions being presented to these news organisations. This is an opportunity for future research.

### **5.7 How many tweets were original (i.e. new) and how many were only retweets?**

To support observations and discussion for this section, Figure 29 presents a tabular breakdown of all news organisations' original tweets, retweets and total tweets. Figure 30 is a data visualisation of all news organisations' ranked retweets in relation to total tweets. Figure 31 is a data visualisation of all news organisations' retweets in relation to ranked total tweets. Figures 33 to 36 presents a series of data visualisations depicting retweets in relation to original tweets, for each category.

Next, Figure 29 is presented.

### 5.7.1 Data visualisations—observations and discussion

Twitter Username	Original Tweets	Retweets	Total tweets
amliveonsafm	7	35	42
ANN7Reporter	1	0	1
ANN7tv	92	91	183
BDliveSA	2	0	2
CapeTalk	34	10	44
CapeTimesSA	12	9	21
City_Press	110	16	126
dailymaverick	60	0	60
dailysunsa	1	3	4
Die_Burger	2	10	12
Dispatch_DD	19	0	19
ECR_NewsWatch	7	0	7
eNCA	78	56	134
etvSunrise	2	5	7
ewnreporter	173	6	179
ewupdates	19	7	26
GrootFM	2	0	2
HeraldPE	16	0	16
ilisolezwe	4	0	4
IOL	24	40	64
JacaNews	169	2	171
mailandguardian	9	1	10
mojoIOL	29	12	41
MorningLiveSABC	1	0	1
MyNews24	4	5	9
Netwerk24	31	0	31
Netwerk24Berig	402	13	415
News24	28	4	32
POWER987News	137	4	141
pretorianews	1	0	1
Radio702	48	12	60
Radio2000_ZA	0	4	4
SABCNetwork	2	0	2
SABCNewsOnline	8	103	111
SABCNewsroom	0	44	44
SABCTVNews	0	27	27
safmmiddaylive	2	18	20
SAfmnews	15	0	15
safmpmlive	7	18	25
SAfmRadio	6	8	14
Sonkoerant	5	21	26
SowetanLIVE	4	0	4
SundayTribuneSA	0	2	2
The_New_Age	3	148	151
TheCapeArgus	11	67	78
TheCitizen_News	30	3	33
thedailyvox	189	90	279
TheMercurySA	0	5	5
TheWeekendArgus	9	34	43
TimesLIVE	5	8	13
TimesLiveNews	7	0	7
zanews	6	0	6
<b>TOTALS</b>	<b>1833</b>	<b>941</b>	<b>2774</b>

Figure 29—All News Organisations: original tweets, retweets and total tweets.

As seen in Figure 29, for all news organisations, noteworthy statistics related to totals are:

- Total original tweets amounts to 1 833.
- Total retweets amounts to 941 tweets.
- Grand total: original tweets plus retweets amounts to 2 774.

- Statistic: original tweets, as a percentage of total tweets, equals 66.1%.
- Statistic: retweets, as a percentage of total tweets, equals 33.9%
- Therefore, roughly a third of all tweets were retweets. Conversely, stated in the opposite, roughly two-thirds of all tweets were original tweets.

Next, Figure 30 deals with ranked retweets (in red) in relation to total tweets (in blue).

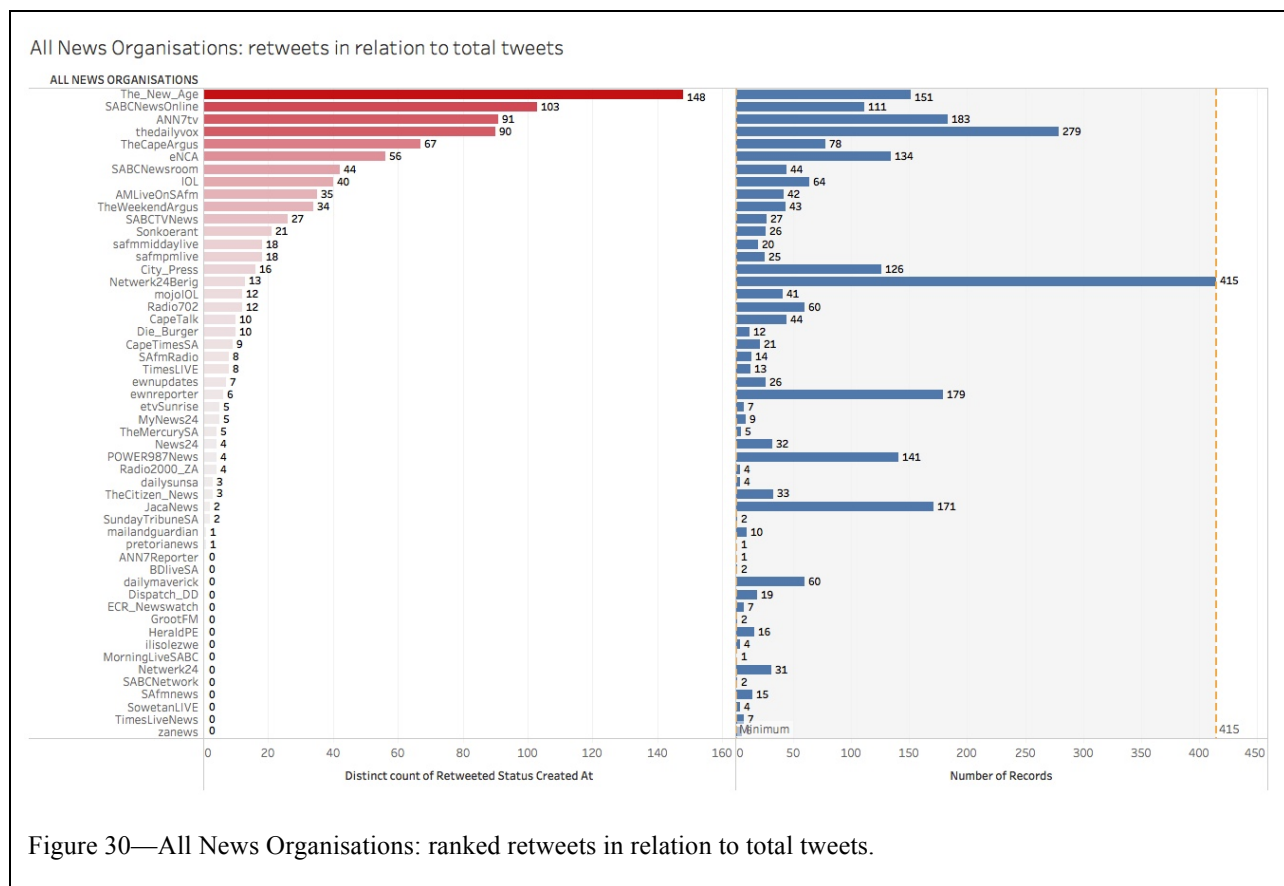


Figure 30—All News Organisations: ranked retweets in relation to total tweets.

As seen in Figure 30, most evident (from the dark red hue of the horizontal bars), are the names of news organisations’ Twitter accounts that made the most use of retweets. For example, *The\_New\_Age* (148 retweets) tops the list, with *SABCNewsOnline* (103 retweets) in second position. What is interesting though, is the total number of retweets that each Twitter user published, in relation to total tweets. So, for example, *The\_New\_Age* (with its 148 retweets) published a total of 151 tweets (as evidenced in the blue horizontal bar). The difference between retweets and original tweets will be dealt with in Figures 32 to 36. Suffice it to say at this stage, it is evident that some news organisations retweeted a lot, whilst others did not make primary use of retweets. This is suggestive of news

organisations’ possible deliberate use of Retweet<sup>14</sup> influence on the networked public sphere. However, the author of this study is also of the view that this could be construed as a possible case for lazy journalism. Retweeting is far easier than constructing original tweets. For this reason, it ought to be borne in mind that Retweet influence can be seen to have a negative impact on the quality of information being disseminated into the networked public sphere. This is so, because the nature of a retweet is such, that mere content of an original tweet published elsewhere on the networked public sphere, is merely being re-circulated.

Next, Figure 31 deals with retweets (in red) in relation to ranked total tweets (in blue).

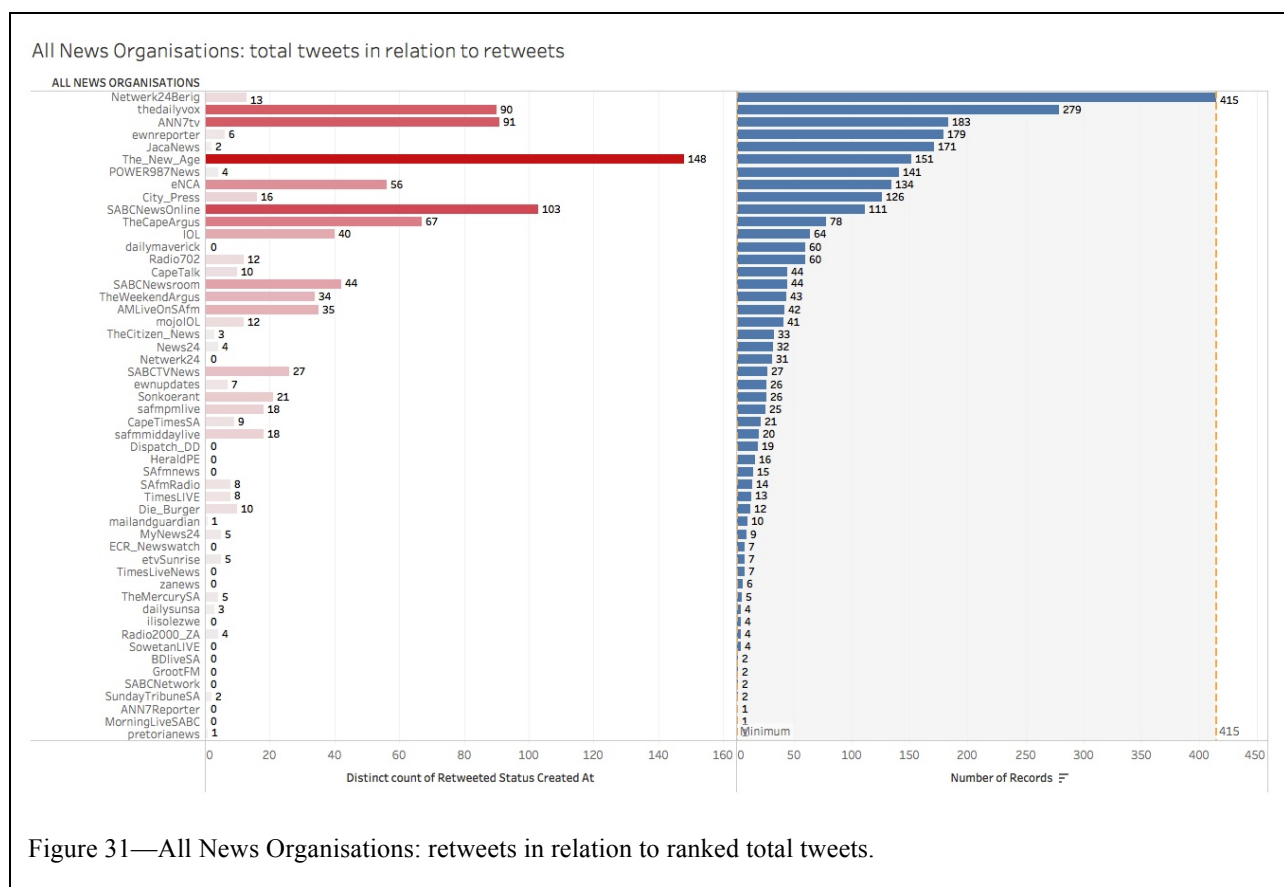


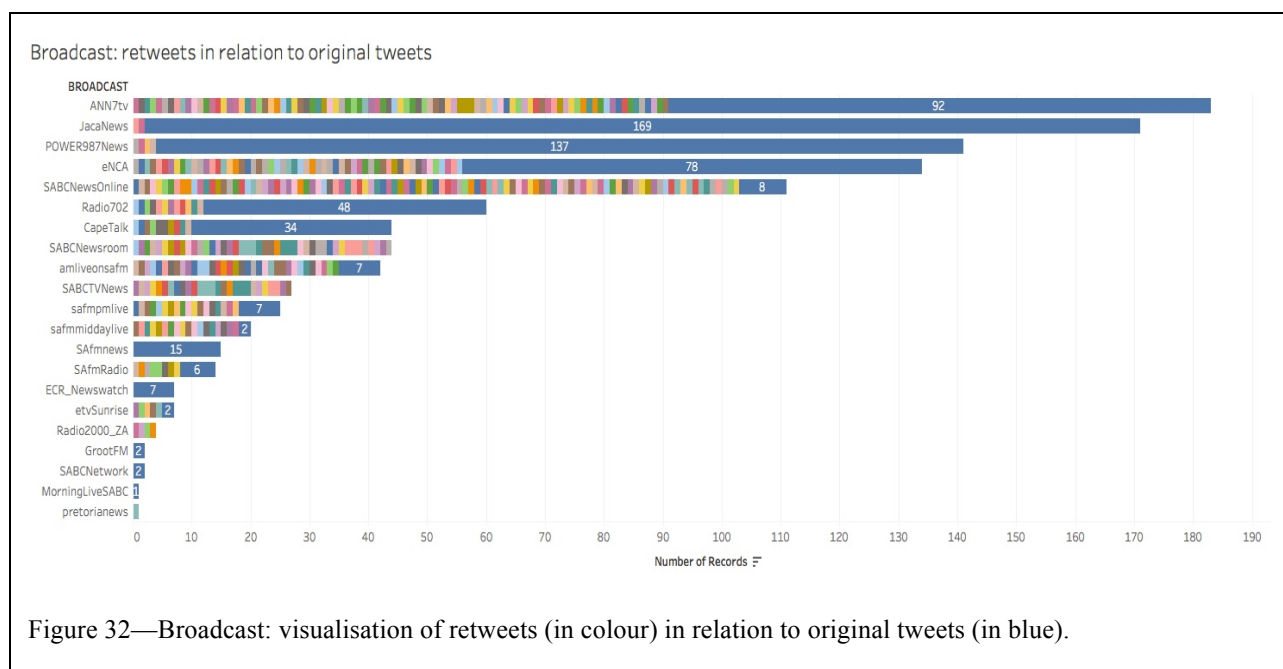
Figure 31—All News Organisations: retweets in relation to ranked total tweets.

As seen in Figure 31, most evident (from the longer blue horizontal bars), are the names or news organisations’ total number of tweets published. By looking at the longer red horizontal bars

<sup>14</sup> “Retweet” influence (Cha *et al.*, 2010:12)—as discussed in section 2.4 of chapter 2

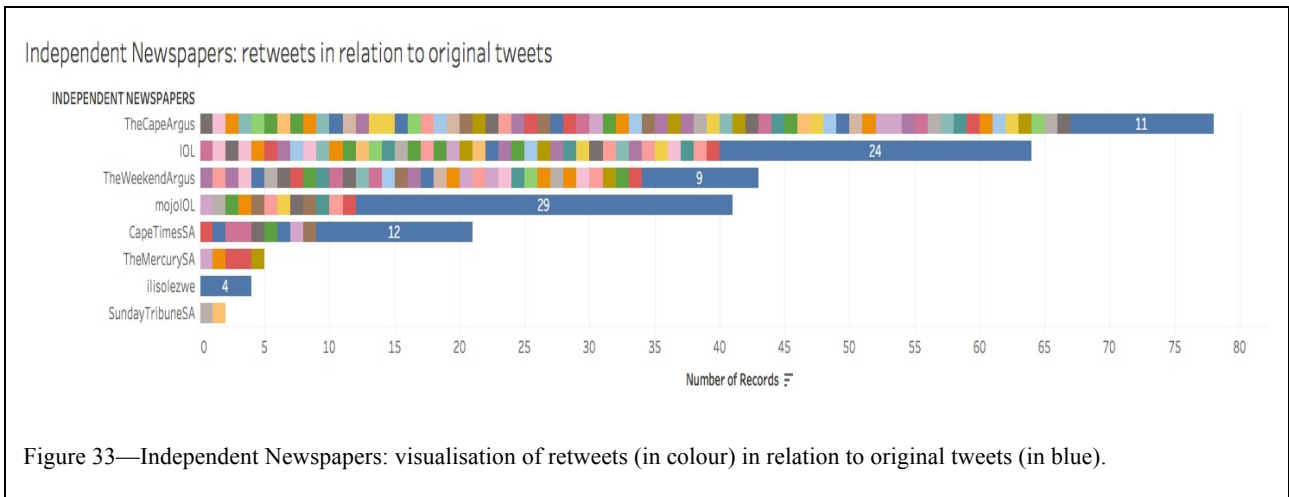
(depicting retweets), one is able to visually identify the names of Twitter users who made notable use of a large volume of retweets. The ranking of the total tweets (evidenced by the longer blue horizontal bars) gives a comparative indication of the most notable Twitter users with the highest number of total tweets, and compares this with its proportionate use of retweets.

Details for each category will be dealt with next in Figures 32 to 36.

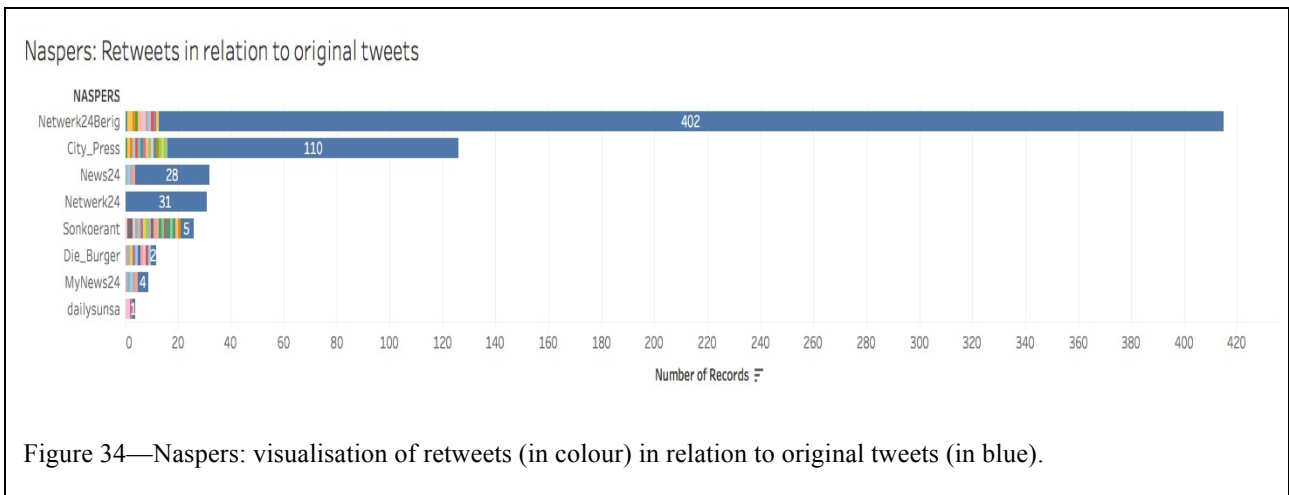


As seen in Figure 32, for the Broadcast category, the horizontal bar represents retweets (in a series of coloured segments) as well as original tweets (depicted in blue, with the number of original tweets displayed). So, for example, with a visual glance one can observe that roughly half of *ANN7tv*'s tweets were retweets, with 92 being the exact number of original tweets published. Consequently, with the appearance of the many coloured blocks, it ought to be apparent that, for the Broadcast category, the use of retweets was rather popular. A notable exception, though, would be that of *JacaNews*, which shows a mere fraction of retweets in relation to its 169 original tweets that were published. To a lesser degree, the same applies to *Radio702* (with its 48 original tweets) and *Cape Talk* (with its 34 tweets).



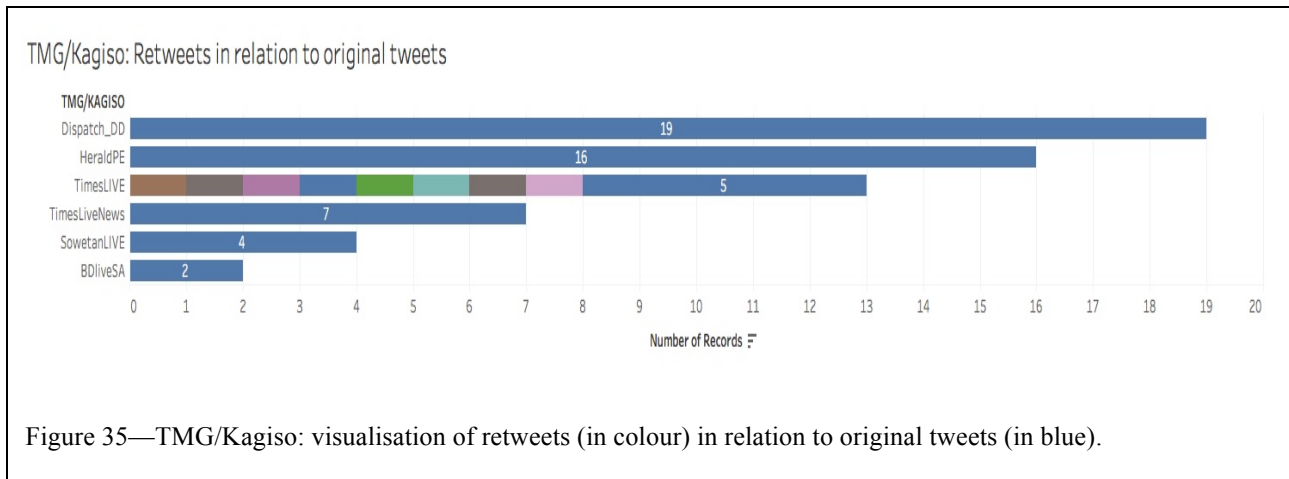


As seen in Figure 33, for the Independent Newspapers category, there is visibly much colour too. Therefore, it is apparent that this category also made significant use of retweets.



As seen in Figure 34, for the Naspers category, there is not much colour. Instead, there is a lot of blue. Therefore, it is apparent that this category made significant use of original tweets. Most notably so, *Netwerk24berig* published a significant 402 original tweets, with *City\_Press* publishing 110 original

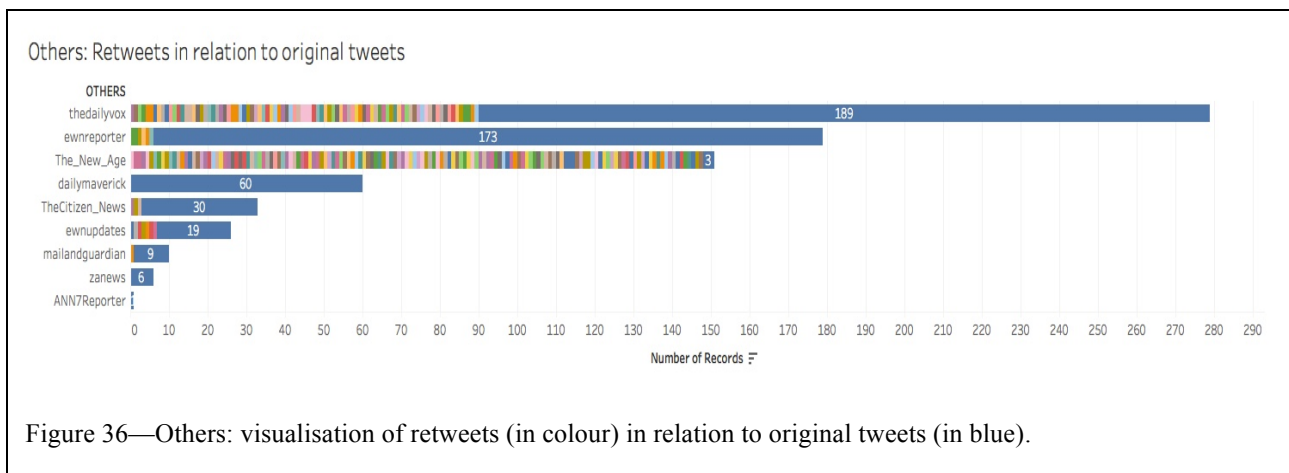
tweets<sup>15</sup>. Exceptions include *Sonkoerant* and *Die\_Burger* only publishing 5 and 2 original tweets respectively.



As seen in Figure 35, for the TMG/Kagiso category, from a visual glance one observes that, with the exception of *TimesLIVE*, most tweets published were original tweets. As evidenced in observations from previous figures, it is once again apparent that the total volume of tweets published for the TMG/Kagiso category was low.

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<sup>15</sup> In section 5.11, these two news organisations will be cited for the use of modified tweets (MT).



As seen in Figure 36, for the Others category, only two news organisations made prominent use of retweets; namely *thedailyvox* and *The\_New\_Age*. Notably so, *The\_New\_Age* only published 3 original tweets. By contrast, *ewnreporter* published a significant 173 original tweets, with the proportion of retweets that it published remaining low.

### 5.7.2 Analysis and insights obtained

The data-visualisations for this section suggest that some news organisations made significant use of retweets, whilst other news organisations made significant use of original tweets. From a category perspective, the Broadcast category made a balanced use of retweets and original tweets. Independent Newspapers leaned strongly towards the use of retweets, whereas Naspers leaned strongly towards the use of original tweets. As already alluded to in the discussion for Figure 30, Retweet influence might have been the deliberate tweet-publishing strategy for some news organisations. This might be an opportunity for future research to focus on more nuanced perspectives and reasons for the underlying use of news organisations' choice of retweets. The author of this study is of the view that the efficacy of the retweet requires significant further research.

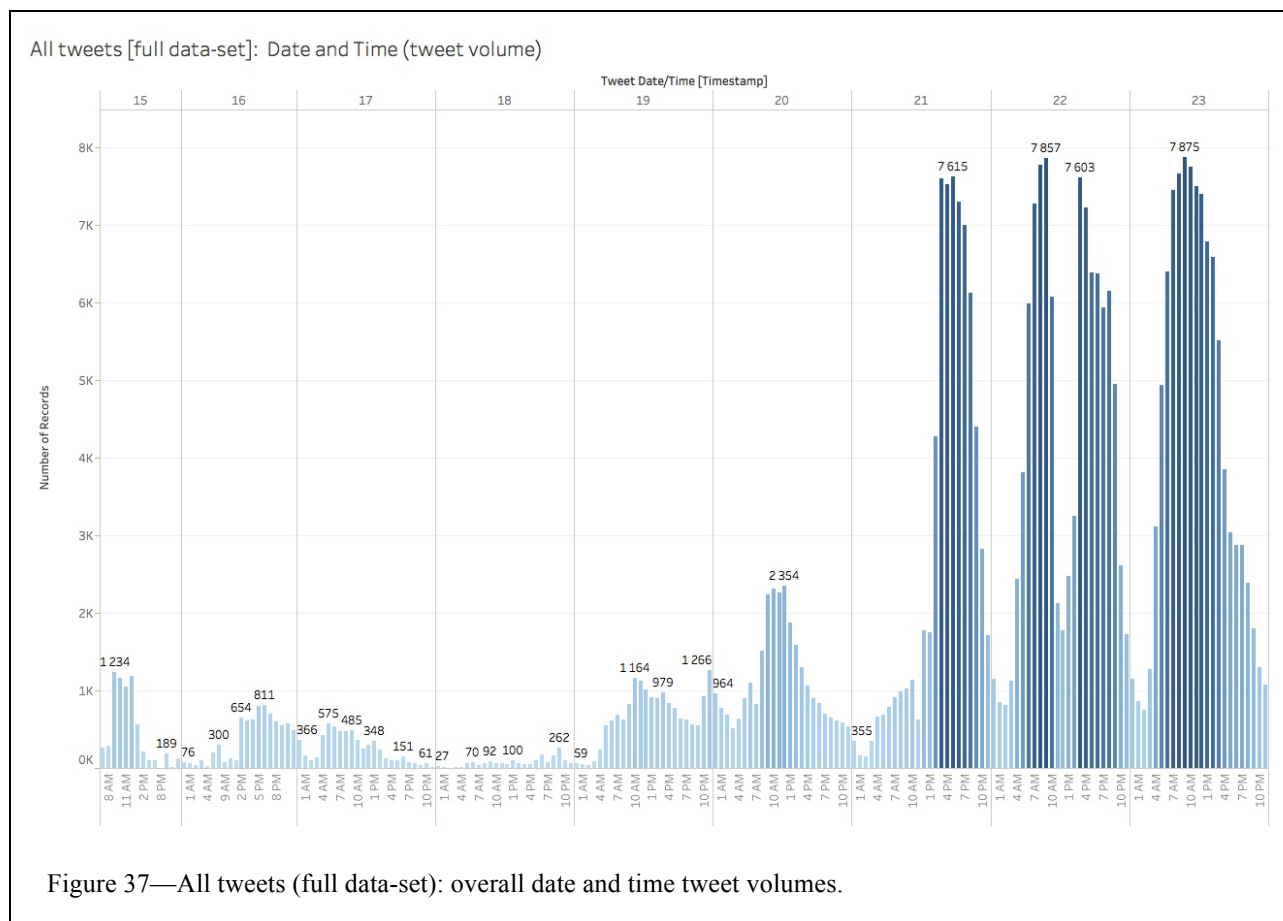
## 5.8 What was the overall tweet-volume for the date-period under review (i.e. time series graph)?

To support observations and discussions for this section, Figure 37 is a visualisation that serves as an opening reference point: a depiction of the overall data and time tweet volume for all tweets in the

entire data-set. Figure 38 is a visualisation of all News Organisations' date and time tweet volumes. Figure 39 to 43 presents the visualisations for each category.

Next, Figure 37 is presented.

### 5.8.1 Data visualisations—observations and discussion



As seen in Figure 37, for all tweets in the full data-set, the last three days (i.e. 21, 22 and 23 October) saw the volume of tweets peak. On 19 and 20 August, signs of tweet volumes beginning to pick up in volume were beginning to show. On Tuesday 20 August, tweet volumes peaked at approximately 2 354 tweets per hour at around 12pm. As previously stated in Section 1.3 of Chapter 1, a possible reason for this may have been because this was the date when Wits University students rejected the proposed 6% fee increase, demanding a zero percent (0%) increase instead (“Students Reject 6% Cap”, 2015). On 21, 22 and 23 October, tweet volumes were relatively equal, peaking at approximately 7 600 to 7 890 tweets per hour. The blue-bars “tower” on 21 October has a single tall column, suggesting a rapid rise to its peak tweet volume per hour of 7 615 tweets. By contrast, the

blue-bars “towers” on 22 October has two tall columns, suggesting two different times at which peak tweet volumes per hour were reached: the first took place between 7am to 10am with 7 857 tweets, and the second took place between 4 to 5pm with 7 603 tweets. Lastly, the blue-bars “tower” on 23 October is significantly thicker than on the prior two days, suggesting a sustained peak in tweet volumes for most of the daytime hours.

Next, Figure 38 is presented.

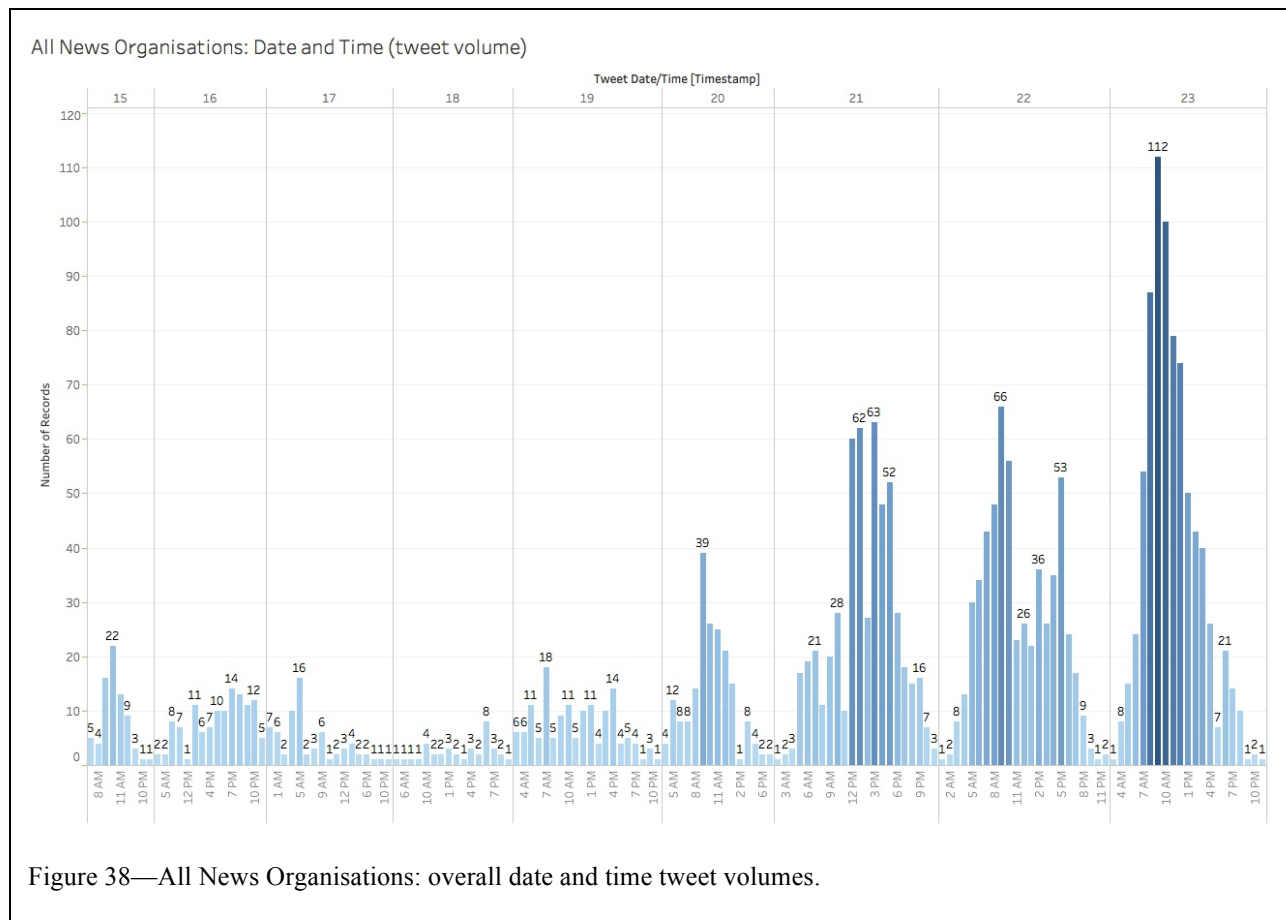
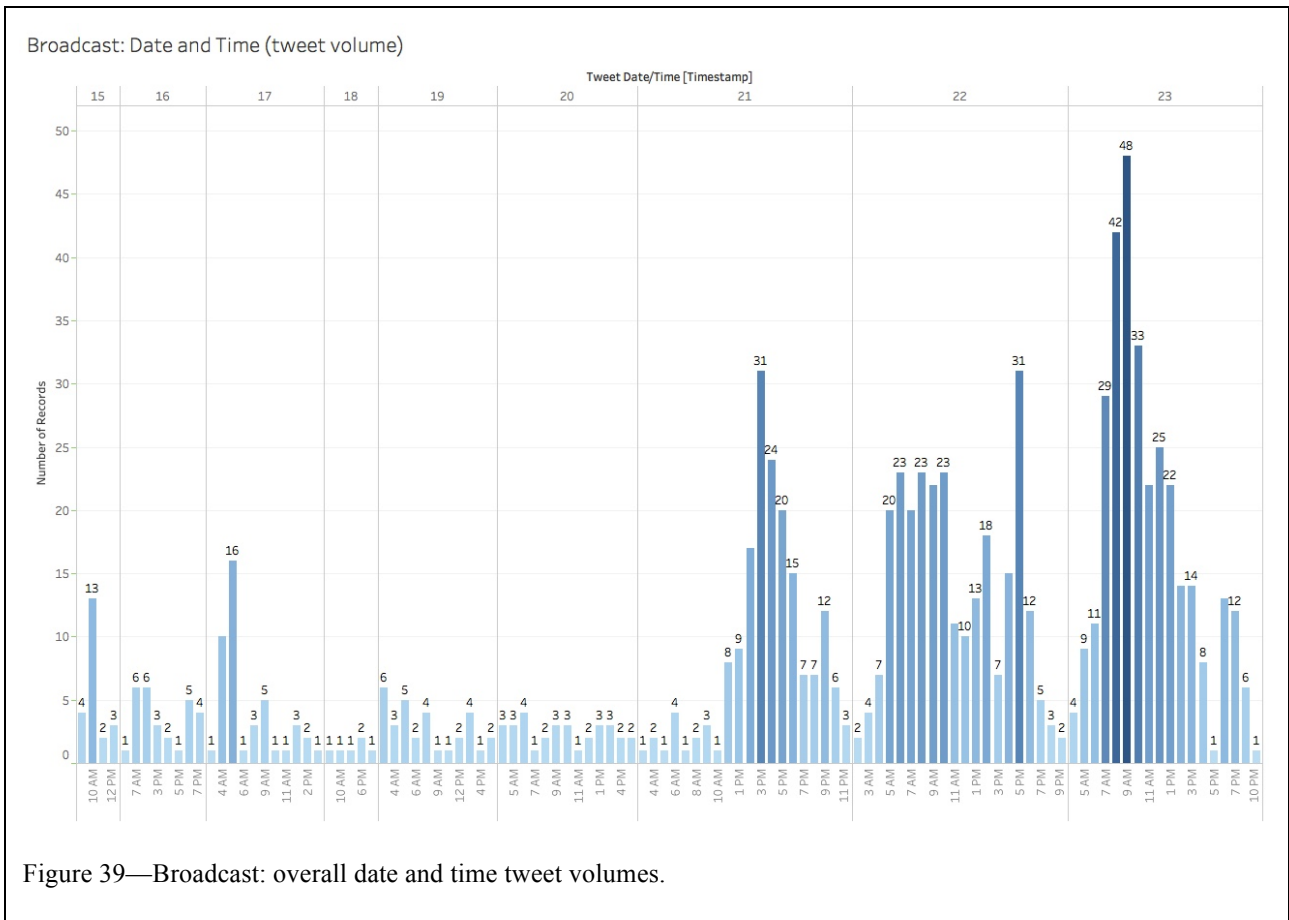
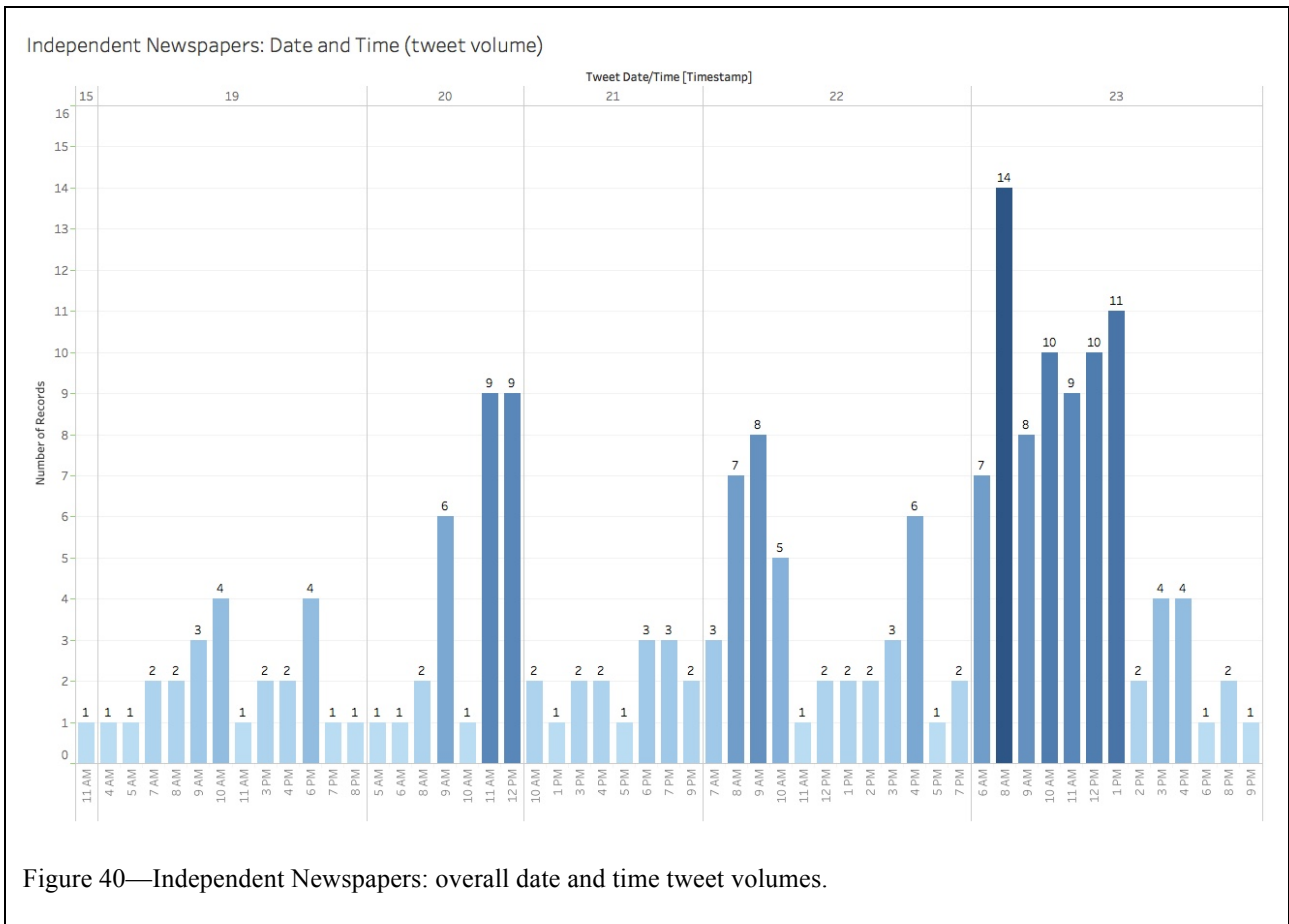


Figure 38—All News Organisations: overall date and time tweet volumes.

As seen in Figure 38, for all News Organisations, there was more of a gradual increase in tweet volumes, with each of the last four days (i.e. 20, 21, 22 and 23 October) seeing tweets peaking at higher levels than the previous day: on 20 October, tweet volumes per hour peaked at 39; on 21 October, tweet volumes per hour peaked at 63; on 22 October tweet volumes per hour peaked at 66; and, on 23 October, tweet volumes per hour peaked at 112. Most tweeting activity took place during daytime hours.



As seen in Figure 39, for the Broadcast category, the last three dates in the range saw the most tweet volume activity. However, on 21 October, tweets peaked for a slightly shorter period (31 tweets per hour) when compared to that of 22 October, when there was a sustained volume of tweets for most of the morning (at 23 tweets per hour), and finally peaking at the end of the working day, at 5pm, with 31 tweets. On 23 October, during the morning, tweet volumes peaked at 48 tweets per hour.



As seen in Figure 40, for the Independent Newspapers category, overall tweet volumes were low (relative to some of the other categories). Notably so, there were no recorded tweet activity on 16, 17 and 18 October. Relative to 20, 22 and 23 October’s tweet volumes which hovered around 7-14 tweets per hour, tweet volumes for 21 October dropped to a maximum of 3 per hour in the late afternoon.

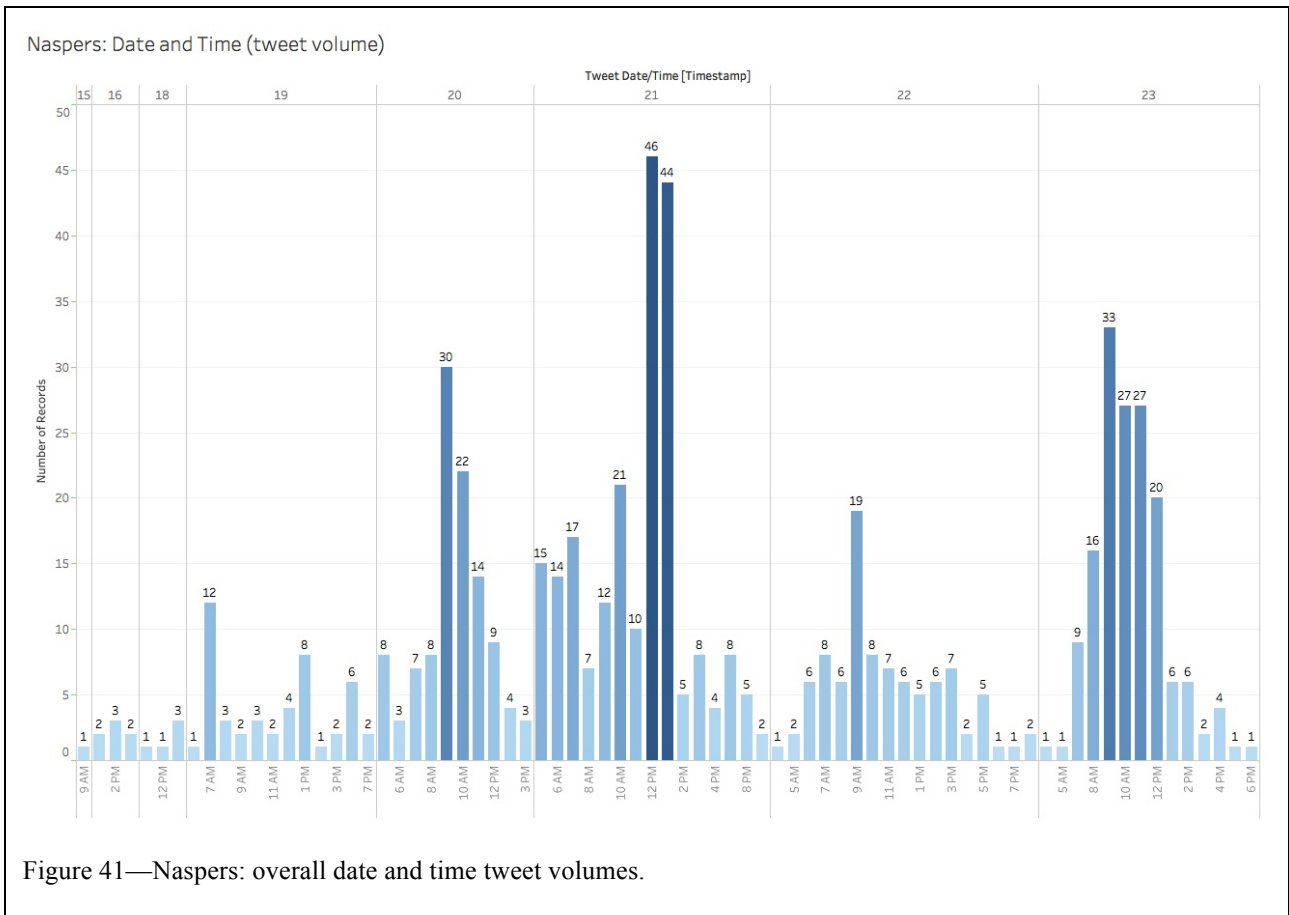
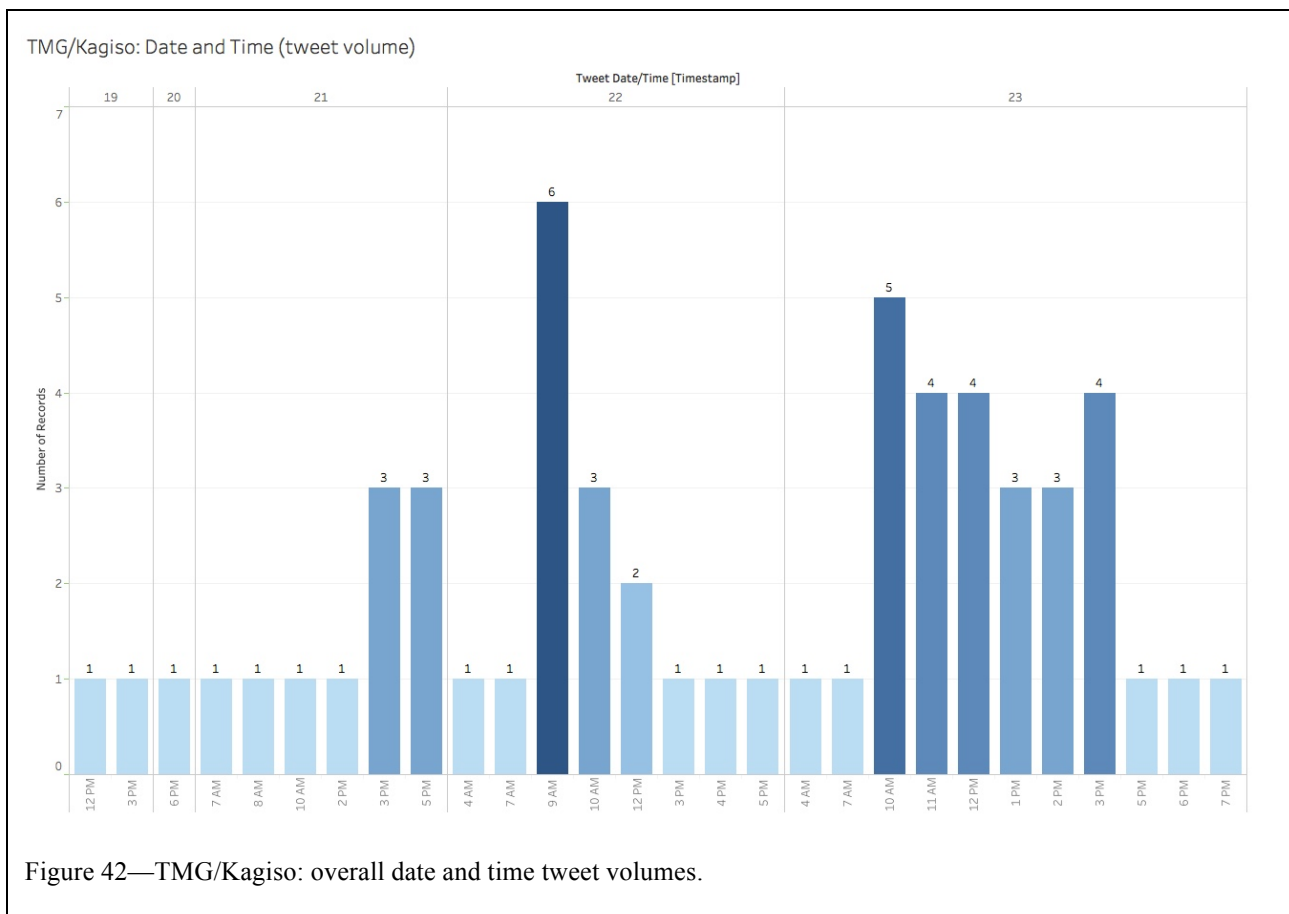


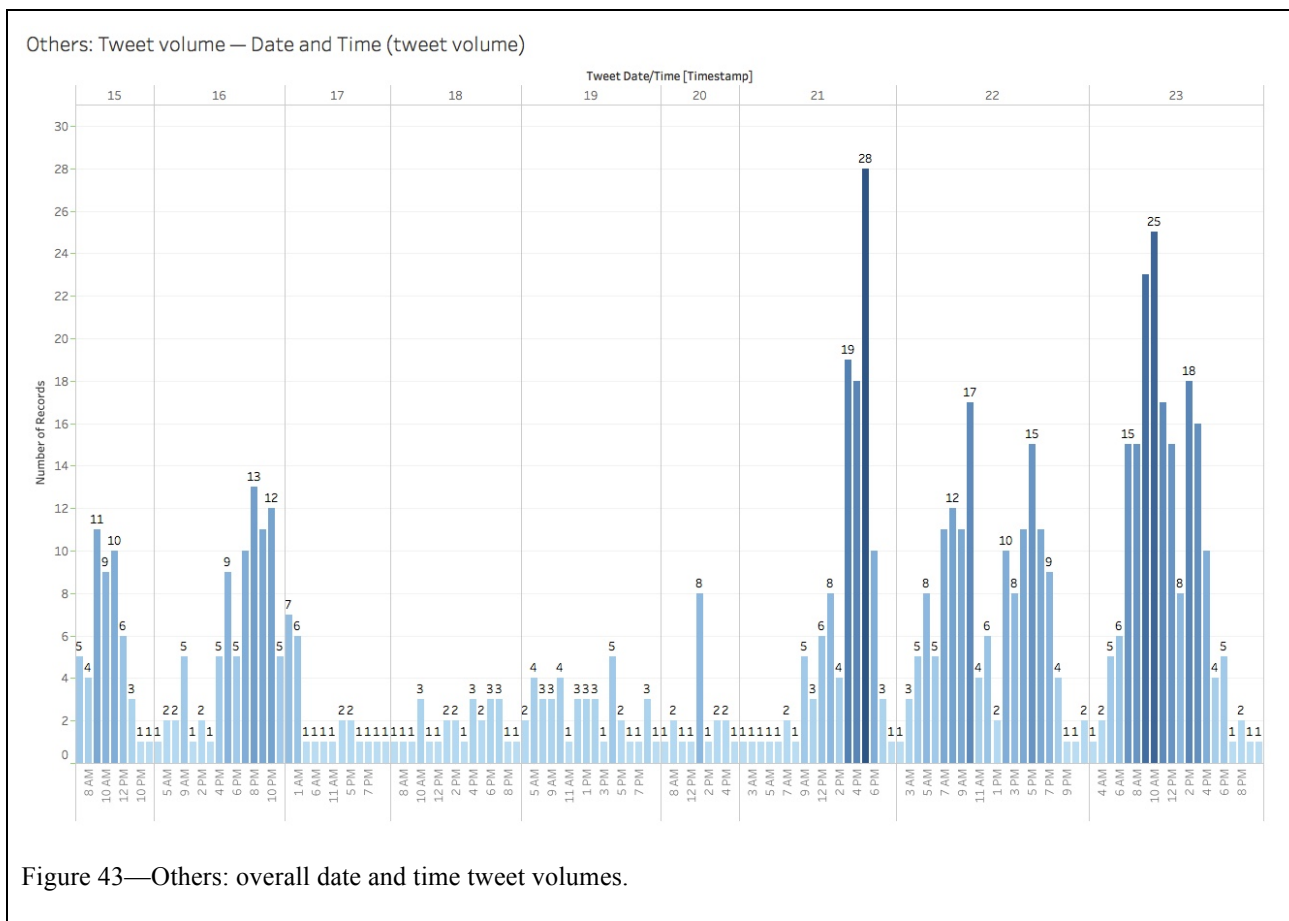
Figure 41—Naspers: overall date and time tweet volumes.

As seen in Figure 41, for the Naspers category, surprisingly tweet volumes peaked on 21 October (at 46 tweets per hour). A probable reason for this spike in tweet volume might have been because—as previously stated in Section 1.3 of Chapter 1—crowds of students from UCT and CPUT gained forceful access to the South African Parliament in Cape Town (“Riot police vs student power”, 2015). With the increased levels of student protest that took place outside Parliament the previous day, interestingly, tweet volumes for 22 October nevertheless dropped to an average of 6-8 tweets during the daytime, with only a small spike occurring at 9am (with 19 tweets for that hour only). No tweet activity was recorded on 17 October. Tweet volumes on 23 October, peaked before noon (i.e. 12pm).





As seen in Figure 42, for the TMG/Kagiso category, overall tweet volumes were low (by comparison to other categories). Tweet volume peaked at 9am on 22 October, but only for a short while. As such, this was a spike in the day's tweet activity. Tweet volumes on 23 October was more consistent from 10am until 3pm.



As seen in Figure 43, for the Others category, an interesting observation is evident in the data: tweet volumes for 15 and 16 October were more active than on 17, 18, 19 and 20 October. A possible reason for this could be because—as previously stated in Section 1.3 of Chapter 1—it was on 14 October 2015 that the first official protest march took place, and which eventually led to Wits students and staff being prevented from entering the university’s premises (Wakefield, 2015). Furthermore, why this is interesting, is that most of the other news organisations did not react to this event with much tweet-activity. As seen in Figure 38—page 109 of this study—there is some evidence of slight increase in tweet volumes on these two dates, but not decidedly so. The Broadcast category is the only other category that shares a similar (albeit not as marked) pattern. The most likely conclusion to be gained from this, is that—as was the case for the Broadcast category, as well as for the Others category—only a few news organisations from these two categories chose to concentrate on the newsworthiness of this first official protest march, and accordingly, more actively tweeted about it.

For the full date range, Tweet volumes peak at 28 tweets per hour at about 5pm on 21 October. Similar to the All Tweet volume activity discussed in Figure 37, this is the only other category that vaguely resembles its tweet volume pattern. This might suggest that, owing to the nature of the Others category

(being an assortment of independently run and managed news organisations), operational trends specific to a particular news organisation were not that evident.

### **5.8.2 Analysis and insights obtained**

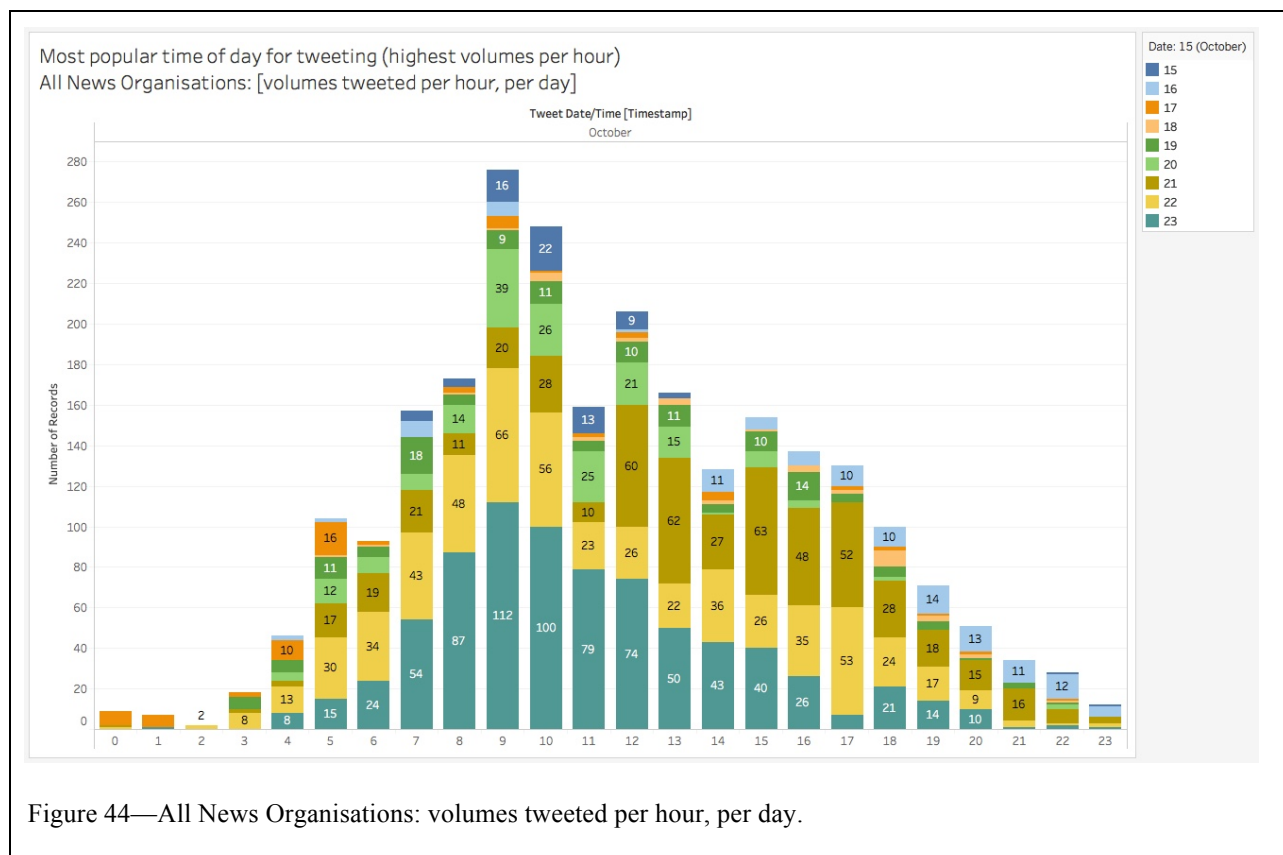
It's apparent in the data, that the dates 20, 21, 22 and 23 October saw gradually increasing tweet volume activity. As outlined in Section 1.3 of Chapter 1 (which outlined a brief background to the events that took place on these various dates), a good overall idea is gained from what happened on the ground on these dates. There were spikes in tweet volumes for most categories—this would suggest that news organisations' social media teams published higher volumes of tweets for short periods of time. For the most part, consistent equal volumes of tweets (spanning several hours at a time) was thus not evident in the data. Whilst Figure 37 proves that all Twitter users remained consistently engaged in tweeting activity (spanning several hours at a time), some categories of news organisations were not as consistent in their own engagement on the networked public sphere. This is not as evident (or significant) in categories where small volumes of tweets took place (e.g. TMG/Kagiso, and Independent Newspapers) but certainly, the lack of consistency in tweet volumes is more evident in the other categories with higher tweet volumes. It is interesting that Independent Newspapers, that comprises a rather large number of media publications in the South African media landscape, generated a surprisingly low volume of tweets. Reasons for this would need to come from further research—possible speculative reasons might include: insufficient staff manning social media desk, and/or deliberate limited participation in #FeesMustFall-related debate and engagement. From a prominence perspective (which is dealt with in section 5.10) based on volume of tweets, the Broadcast and Naspers categories stand out.

### **5.9 What was the most popular time of day for posting tweets?**

To support observations and discussion for this section, Figure 44 is a visualisation depicting all news organisations' most popular hours tweeted during the day, for tweeting. Figure 45 to 49 present the visualisations for each category.

Next, Figure 44 is presented.

### 5.9.1 Data visualisations—observations and discussion



As seen in Figure 44, for all News Organisations, 9:00 has the highest “tower” (i.e. bar on the chart), with close to a total of 280 tweets published for the full date range represented in that particular hour (from 15 to 23 October—each date represented by a different colour). In other words, the highest tower clearly indicates the most popular hour of the day for publishing tweets. Because each tower reflects the tweet volumes for the full date-range, each successive colour represents the total amount of tweets that were tweeted for that particular hour, for each particular date. Thus, for example, at 9:00 on 23 October in the turquoise hue (refer colour key on right-hand side of visualisation), 112 tweets were tweeted between 9:00 and 10:00. The following example depicts a range spanning several hours in the afternoon: on 21 October (in brownish hue) starting at 12:00, the tweet volume was 60 tweets per hour, followed by 62 tweets per hour at 13:00, 27 tweets per hour at 14:00, 63 tweets per hour at 15:00, 48 tweets per hour at 16:00, and so on. This proves that for 21 October, the afternoon hours between 12:00 and 18:00 saw significant tweet volume activity. A further and final example is to look at 17:00 and note how, for 21 and 22 October, and almost equal tweet volume per hour is evident in the data, with 52 and 53 tweets for each day respectively, being recorded.

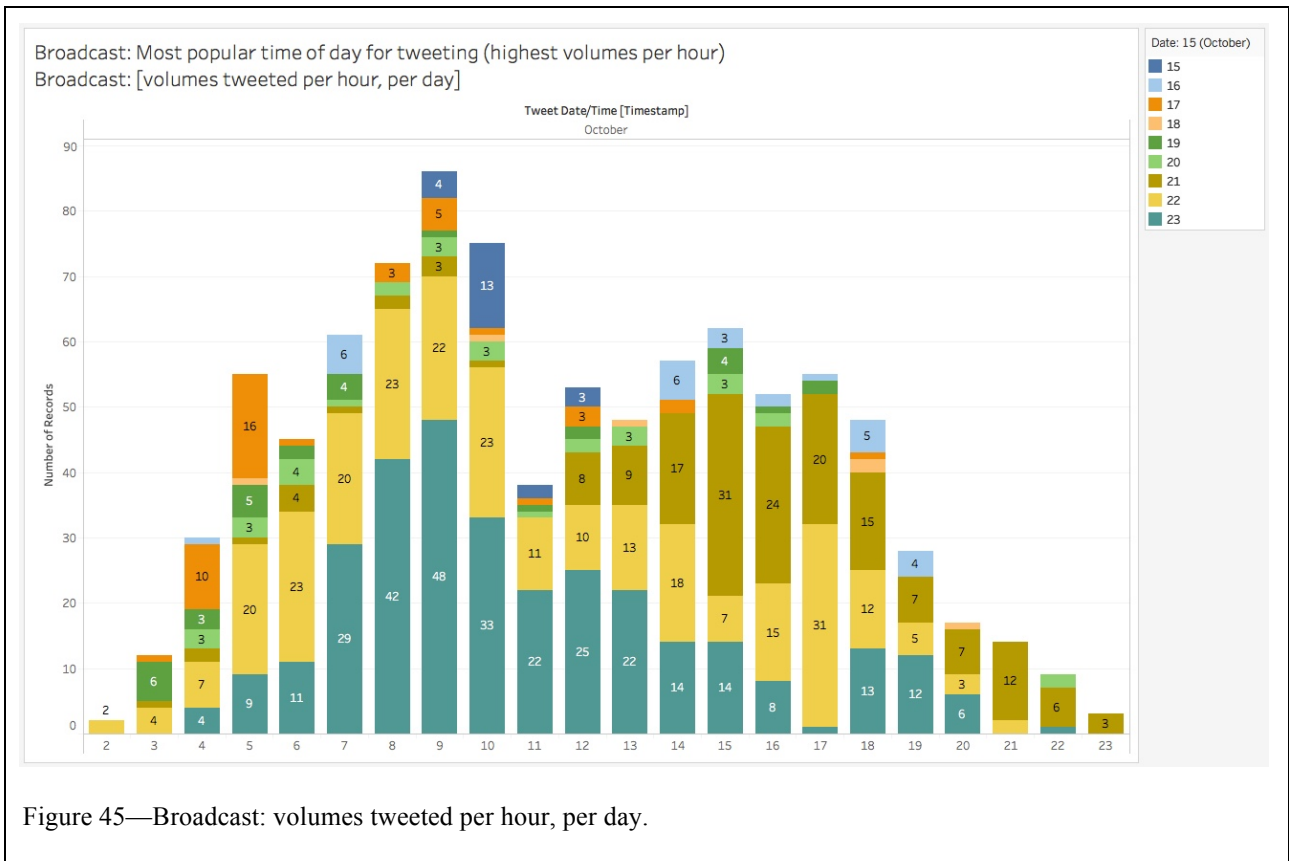
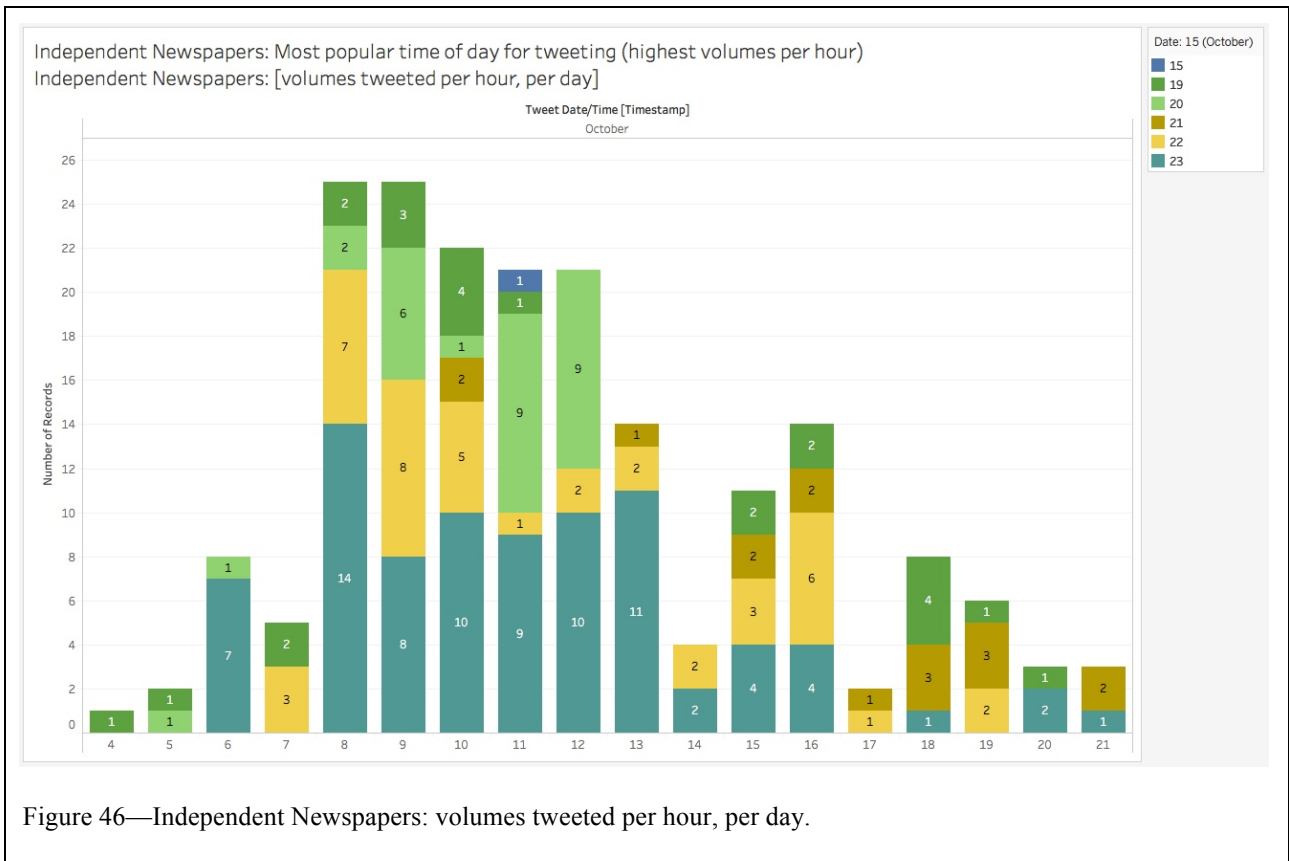


Figure 45—Broadcast: volumes tweeted per hour, per day.

As seen in Figure 45, for the Broadcast category, in terms of tweet activity, the most voluminous days were 21, 22 and 23 October. On 21 October, tweet volumes peaked at 15:00, with 31 tweets, with overall tweet activity having taken place all afternoon (14:00 with 17 tweets; 15:00 with 31 tweets; 16:00 with 24 tweets; 17:00 with 20 tweets; 18:00 with 15 tweets). On 22 October, tweet activity was fairly consistent throughout the entire working day: as evidenced in the significant volume of tweets spanning every hour from 4:00 with 7 tweets, through to the peak for this date, at 17:00 with 31 tweets, and tapering off until the last tweets at 21:00. On 23 October, most tweet volumes were evidenced. Compared with 22 October, tweet activity was less consistent across the day, with most of the tweet activity taking place from 5:00 with 9 tweets, peaking at 9:00 with 48 tweets, and then tapering off during the remainder of the day.



As seen in Figure 46, for the Independent Newspapers category, the data suggest erratic and inconsistent tweeting activity. No activity was evidenced on 16, 17 and 18 October, with on 1 tweet on 15 October. On 19 and 20 October, tweet volumes were erratic, with most tweet volumes taking place between 7:00 and 12:00—peaking between 11:00 and 13:00 with 9 tweets per hour. On 22 October, a similar pattern is evidenced in the data, but with the addition of extra tweeting activity taking place in the afternoon hours too. However, most tweet volumes were evidenced on 23 October: commencing at 6:00 with 7 tweets, 8:00 peaked with 14 tweets, dropping to 8 tweets at 9:00 and gradually increasing again until 13:00 with 11 tweets, before tapering off in the afternoon.

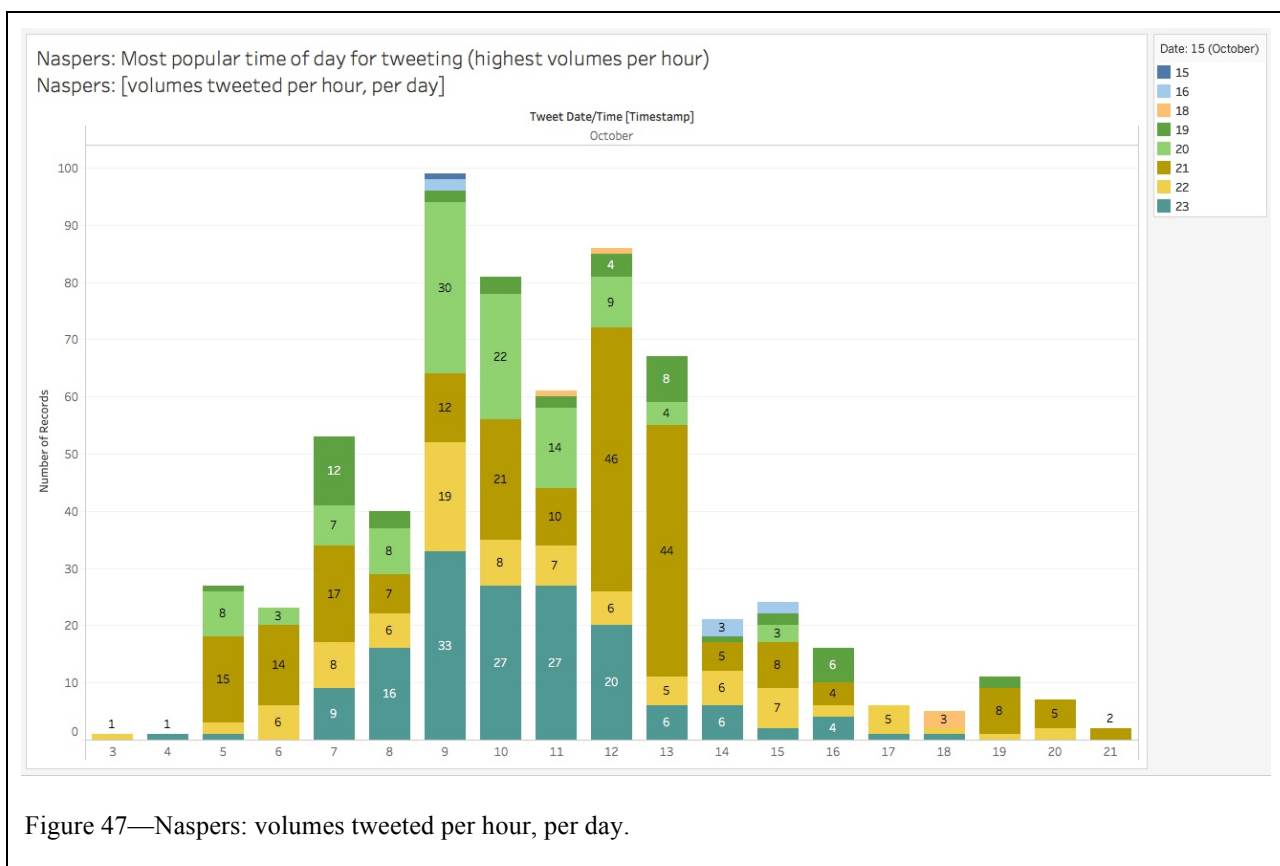


Figure 47—Naspers: volumes tweeted per hour, per day.

As seen in Figure 47, for the Naspers category, the data suggest less of an erratic and inconsistent tweeting activity than Independent Newspapers. With little tweet activity taking place on 15, 16 and 18 October, there was no tweet activity recorded on 17 October. On 20 October, most tweet volumes took place in the early morning, peaking at 9:00 and 10:00 with 30 and 22 tweets respectively. On 21 October, tweet volumes were more consistent throughout the day, with the greatest tweet volumes for the date range being recorded at 12:00 and 13:00 with 46 and 44 tweets respectively. Tweet volumes for 21 October continued for the rest of the day too—tapering off with the last of the tweets being published into the evening: 19:00 with 8 tweets, 20:00 with 5 tweets and 21:00 with 2 tweets. On 23 October tweet volumes were more concentrated between 7:00 with 9 tweets, peaking at 9:00 with 33 tweets, and tapering off significantly from 12:00 onwards.

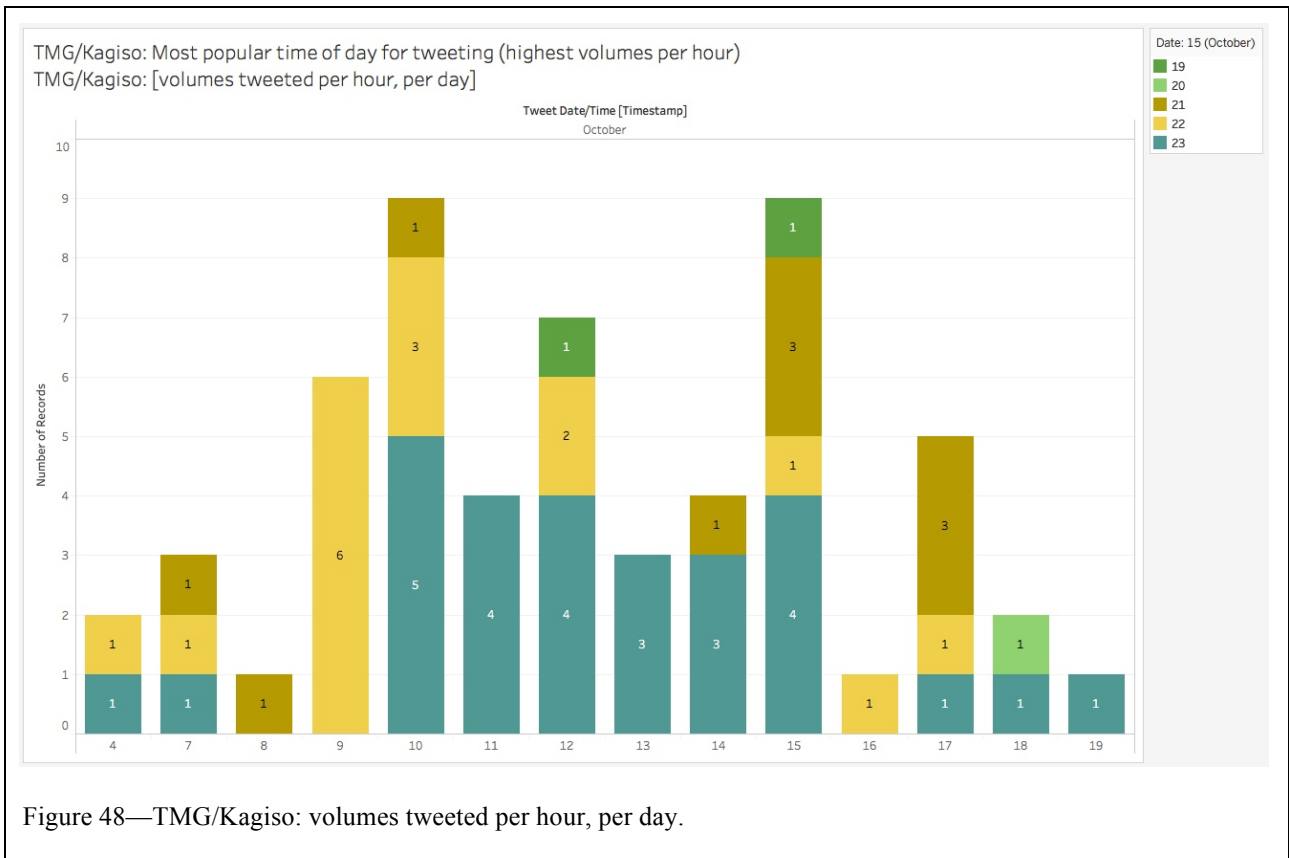
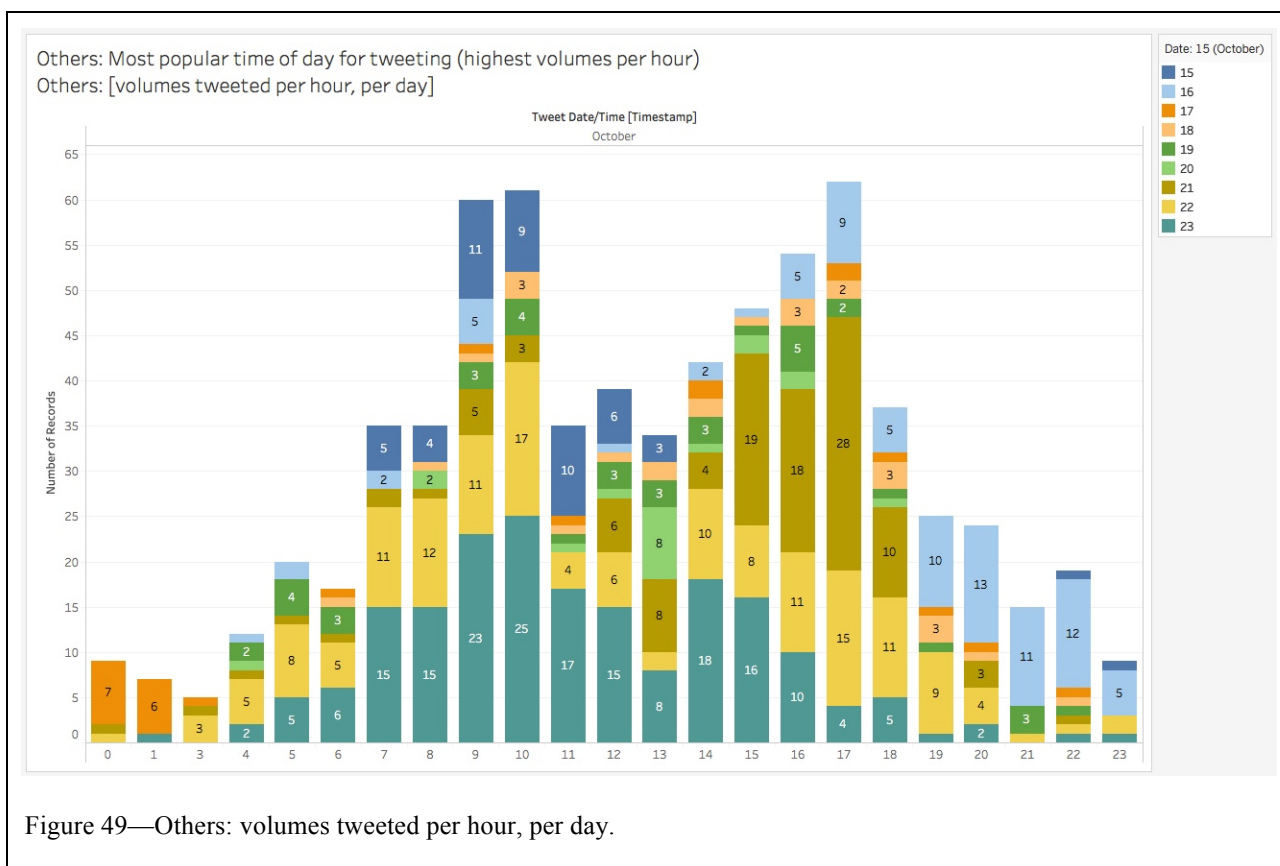


Figure 48—TMG/Kagiso: volumes tweeted per hour, per day.

As seen in Figure 48, for the TMG/Kagiso category, no tweet activity was recorded on 15, 16, 17 and 18 October. On 19 October, 2 tweets were recorded: 1 tweet at 12:00 and 1 at 15:00. On 20 October, only 1 tweet was recorded at 18:00. As such, for this category, tweet activity was disappointing. On 21, 22 and 23 October, tweet activity was busier than on prior dates in the date range, by certainly not significantly so. On 22 October, tweet volumes were highest in the morning, whilst on 23 October, tweet volumes took place between 10:00 and 15:00.





As seen in Figure 49, for the Others category, tweet volumes (and thus tweeting activity for the collective set of news organisations represented in this category) were rather active for some dates. On 15 October, most tweeting activity took place between 7:00 and 12:00. However, 16, 17, 18 and 19 October did not see much tweet volumes recorded. For 21 October, most tweet activity took place in the mid-to-late afternoon: 15:00 with 19 tweets, 16:00 with 18 tweets, 17:00 with a peak at 28 tweets and 18:00 with 10 tweets. On 22 October, consistent tweet volumes are to be evidenced throughout most of the day: 3:00 with 3 tweets and every hour thereafter seeing tweets being published right through until 23:00 when the last few tweets were recorded. Lastly, as evidenced in most of the previous categories, 23 October saw the most active tweet volumes, with two peaks being witnessed for this category: 9:00 and 10:00 with 23 and 25 tweets respectively, and later in the day, another peak at 14:00 and 15:00 with 18 and 16 tweets respectively. As previously stated in Section 1.3 of Chapter 3, this was day when President Jacob Zuma announced that there would be a zero increase for the 2016 academic year (Hosken, 2015), with one online news report reporting on the protest success by calling it “...a victory and hailed the action as South Africa’s ‘Education Spring’” (Baker, 2015).

### **5.9.2 Analysis and insights obtained**

From the discussion for Figures 45 to 49 it is evident that the first half of the date range saw the least tweet volumes being recorded. Most news organisations only seemed to truly participate in the #FeesMustFall debate from 21 October onwards. In terms of consistent tweeting activity for the full date range, news organisations from the Broadcast category were seemingly the most active participants in the #FeesMustFall debate. This conclusion is based on consistency and not on overall number of tweets by any particular Twitter user account. In other words, news organisations in the Broadcast category demonstrated how—as a collective set—active participation in the #FeesMustFall debate was facilitated, on a consistent and constant basis. By contrast, the TMG/Kagiso and Independent Newspapers categories demonstrated decided levels of inconsistency and erratic participation in the #FeesMustFall debate on the networked public sphere. A final insight gained, is that one is able to recognise how individual Twitter accounts of news organisations do not impact the efficacy of the collective participation in #hashtag-related debates taking place within the broader networked public sphere. This will be touched upon in the concluding discussion in Chapter 6 which relates these findings to the primary research question for this study.

### **5.10 Which was the most prominent news organisation category on Twitter (measured by volume of tweets)?**

As touched upon (and evident in the data from section 5.8, pp.102-110), based on volume of tweets, two categories stand out for their volume of tweets published. These are the Broadcast and Naspers categories (refer Figures 45 and 47). However, the author of this study asserts that prominence on Twitter is not a simple case of identifying a single news organisations' Twitter account and adjudicating it to be the most prominent based on, for example, number of original tweets or number of retweets. Accordingly, the various forms of influence that was discussed (e.g. indegree, retweet and mention influence) cannot be isolated as a standalone measure that contributes towards Twitter prominence either. To do so would be to apply a reductionist formula to an intricate analysis. Importantly, prominence is necessary as part of the discussion that addresses the answering of the primary research question which is dealt with in Chapter 6.

## 5.11 How many times were news organisations referencing external content via embedded links?

As explained in section 4.2.3 of Chapter 4, these two research questions deal with the qualitative component of this study. In particular, this question (section 5.11) and the next question (in section 5.12) deal with two tweet-fields in the data-set: the “retweeted\_status\_text” tweet-field and the “text” tweet-field. But, before this question can be answered, it is first necessary to offer an explanation related to the underlying methodology that supports how the answer was determined. This will be done next, by providing a short description of the process that was used to conduct the qualitative inspection of these data in these two fields.

### 5.11.1 Exploring the “text” tweet-field

Links to external content — Tweets only	Primary tweet: details
	Nkwanyana: We agreed that there should not be a fee hike higher than the 6 percent on the table #NationalShutDown #FeesMustFall #Dstv405
1	Panel discussion on the #NationalShutDown situation #FeesHaveFallen #Dstv405 <a href="https://t.co/Pj2FrqXbAD">https://t.co/Pj2FrqXbAD</a>
	Patel: Government will cover the shortfall which is the 6% #ANN7Prime #FeesMustFall
1	Patel: The council said they are willing to talk to the students and start negotiating #ANN7Prime #FeesMustFall <a href="https://t.co/r4MfCsbLop">https://t.co/r4MfCsbLop</a>
	Patel: The figures are incorrect and the facts that Lushaba is raising is factually incorrect #ANN7Prime #FeesMustFall
	Patel: We are talking to Govt and banks to see if we can come up with greater solutions #ANN7Prime #FeesMustFall
1	Political Analyst Prof Siphoo Seepe gives us his thoughts regarding \n#NationalShutDown #FeesMustFallForAll #ANN7 <a href="https://t.co/Bo5q7zFDio">https://t.co/Bo5q7zFDio</a>
1	Reporter @BrandtKev gives us the latest in regards to #uctshutdown   Watch #Dstv405 #ANN7 <a href="https://t.co/W39cuOidof">https://t.co/W39cuOidof</a>
	Seepe: Students are asking the ANC to deliver on their promises #FeesMustFall #NationalShutDown #Dstv405
1	Shots fired at the #unionbuilding #VarsityRising #FeesMustFall <a href="https://t.co/kHfiG6sOC7">https://t.co/kHfiG6sOC7</a>
1	Should corporates adopt technical programmes?   Vote here <a href="https://t.co/RUEkU7hRzT">https://t.co/RUEkU7hRzT</a> \n#FeesMustFall #NationalShutDown
1	Should Vice Chancellors take pay cuts?   Vote here <a href="https://t.co/RUEkU7hRzT">https://t.co/RUEkU7hRzT</a> #varsitycollege #NationalShutDown #FeesMustFall
1	Spokesperson, Department of Higher Education Khaye Nkwanyana joins the #NationalShutDown debate on #ANN7Prime <a href="https://t.co/bNtFmV30fi">https://t.co/bNtFmV30fi</a>
1	Students continue to protest for a zero percent fee hike #FeesMustFall #OccupyLuthuliHouse #Dstv405 <a href="https://t.co/FXo4BgOxRL">https://t.co/FXo4BgOxRL</a>
1	Students detained at police station for fee hike protests   Watch <a href="https://t.co/II1SSaaXgx">https://t.co/II1SSaaXgx</a> #uctshutdown #ANN7 <a href="https://t.co/CkxmdDYrCq">https://t.co/CkxmdDYrCq</a>
	Students from international universities have come out to support #Fees must fall campaign #FeesMustFall #NationalShutDown #Dstv405

Figure 50—“text” tweet-field and how external URL links were identified.

As seen in Figure 50, the data-sample shows how tweet data from the “text” tweet-field looked after being exported to an Excel spreadsheet. Once in Excel, a manual process of inspecting each tweet was undertaken. The tweets were individually scan-read (i.e. skimmed). Where an external URL link was seen in the text, a count-indicator (visible as a “1” in the left column) was assigned to that particular tweet. Once all the tweets were inspected, a total of all tweets containing external URL links was calculated. This allowed the author of this study to determine the number of instances where news organisations’ tweets referenced content residing on external media platforms – for example, links to news video-clips, news articles, pictures, etc.

Next, an explanation of how the “retweeted\_status\_text” tweet-field was inspected will be discussed.

### 5.11.2 Exploring the “retweeted\_status\_text” tweet-field

Retweeted Status Text: details		Name of original Twitter user being retweeted
RT	@natasha_phiri3: @ANN7tv Business owners closing their shops as #TUT students make their way to the #unionbuildings #FeesMustFall https...	
RT	@Lolly_funk: @ANN7tv doing a good job. Thank you very much for the coverage 🙏 #FeesMustFall	
RT	@SoulLover...: @ANN7tv gave us the best coverage and analysis of #FeesMustFall among all the tv stations. Thanks so much! 🍷💛	
RT	@_lebomakhudu: @ANN7tv Nice coverage 👍👍👍 #FeesMustFall	
RT	@OWNTAPOHESJ: @ANN7tv Revolution cannot be delayed #FeesMustFall	
RT	@natasha_phiri3: @ANN7tv Some #TUT students are the instigators of the #violence #FeesMustFall	
RT	@LesandaPhakathi: @ANN7tv the mass has spoken what is so hard for our leaders to just cut off the fees?\r#FeesMustFall	
RT	@Jalibo: @ANN7tv Tomorrows meeting must be televised #Feesmustfall	
RT	@phutism: @MyANC_Communications head Keith Khoza talking to #ANN7 @ANN7tv @DSTV 405 #FeesMustFall	
RT	@PeterVanO: @Tukkies to re-open today. Many @WitsUniversity students calling for exams to be postponed indefinitely. #FeesMustFall @ANN7...	

Figure 51—confirming RT’s in the “retweeted\_status\_text” tweet-field.

As can be seen in Figure 51, the “retweeted\_status\_text” field comprised three main sections: a two letter code (RT—encircled in a red line); followed by the @Username (encircled in a purple line) of the original user whose tweet was being retweeted; and thirdly, the actual text content of the retweet. As was done for the data discussed in Figure 50, the same was done here too. The tweets were individually scan-read (i.e. skimmed) in order to determine whether all retweets were indeed of the RT type. This was necessary because Twitter also places another type of tweet in this field—the modified tweet (MT). In the data-set, some modified tweets (MT’s) were encountered. These were flagged and counted.

Next, an explanation of how the modified tweets were determined will be provided.

### 5.11.3 Determining the modified tweets (MT)

Modified Tweets (MT)	Retweeted Status Text: details
1 MT	@alet87: Polisie het 12 studente in hegtenis geneem wat onwettig ingange versper het. #UCTFeesMustFall
1 MT	@alet87: Polisie stoot studente in St. John's-straat op. Betogers tart hulle, gooi hulle met goed.\n#FeesMustFall\nhttps://t.co/kcjqSBo2di
1 MT	@alet87: Polisiebeampte probeer aan studente by #parlement verduidelik dat hulle nie sonder permit mag betoog nie.\n#UCTFeesMustFall
1 MT	@alet87: Situasi baie gespanne met studente wat steeds aandrang om Nzimande te sien.\n#ShutDownParliament #UCTFeesMustFall
1 MT	@alet87: So lyk Bremner-gebou by UK nadat studente die deure oopgedwing het.\n#UCTFeesMustFall\nhttp://t.co/r1r705UfZr
1 MT	@alet87: Sowat 500 betogers nou buite #parlement, skree: 'We want Blade!'\n#UCTFeesMustFall #ShutDownParliament\nhttps://t.co/nVj889Mbya
1 MT	@alet87: Sowat 1000 studente het laasnag na Rondebosch-polisiekantoor opgeruk nadat 20 studente aangekeer is. #UCTFeesMustFall
1 MT	@alet87: Sterk polisieaanwoordigheid by ingang na bo-kampus. #UCTFeesMustFall https://t.co/tBEVaRD5ng
1 MT	@alet87: Stormloop na #parlement. Studente is in en eufories.\n#UCTFeesMustFall #ShutDownParliament\nhttps://t.co/gGrmrQxYDE
1 MT	@alet87: Studente dans met plakkate en skree: 'Shut down UCT!'\n#UCTFeesMustFall\nhttp://t.co/yG8ilpB74y
1 MT	@alet87: Studente dring aan op vergadering met al die visekanseliers en ministers van finansies en onderwys.\n#UCTFeesMustFall
1 MT	@alet87: Studente druk hek na #parlement oop. Polisie druk terug, studente spat in alle rigtings.\n#UCTFeesMustFall #ShutDownParliament
1 MT	@alet87: Studente het gemoedelik in vangwaens geklim, wetende dat hulle nou onwettig betoog. #UCTFeesMustFall
1 MT	@alet87: Studente het hek oopgestoot en is in #parlement. Polisie te min om te keer.\n#UCTFeesMustFall #ShutDownParliament
1 MT	@alet87: Studente in #parlement – kyk video: https://t.co/KPbpLhVB3A\n#ShutDownParliament #UCTFeesMustFall
1 MT	@alet87: Studente sê hulle sal kampsingange versper tot UK instem tot massavergadering 13:00.\n#UCTFeesMustFall\nhttp://t.co/RH9PIBUzNk
1 MT	@alet87: Studente sing rustig buite #parlement terwyl polisie 'n oog hou.\n#UCTFeesMustFall #ShutDownParliament\nhttps://t.co/cn5Lhprjqc
1 MT	@alet87: Studente sit voor Baxter-teater. Luide toejuiging oor aankondiging van nasionale dag van ontwrigting Woensdag.\n#UCTFeesMustFall

Figure 52—Example 1 (*Netwerk24Berig*): Determining modified tweets (MT) in the “retweeted\_status\_text” tweet-field.

As can be seen in the first *Netwerk24Berig* example in Figure 52, modified tweets (MT) were discovered. This example shows Afrikaans content in the text.

Modified Tweets (MT)	Retweeted Status Text: details
1 MT	@Hlengi: Tight security at Luthuli House door as group of protesting students remain blocking door #FeesMustFall https://t.co/GvKfxOaTOC
1 MT	@leosejake: Wits students are having a meeting about what happened at the #UnionBuilding yesterday & a way forward for #FeesMustFall
1 MT	@mbanjwax: BREAKING NEWS: President Zuma to address the nation on the matters relating to #FeesMustFall at 14H45 today. #UnionBuilding
1 MT	@mbanjwax: Presidency: ... as well as other issues of concern that affect students' capacity to learn & do well. #FeesMustFall
1 MT	@mbanjwax: Radebe: #Cabinet believes efforts by Zuma & Nzimande will go a long way to addressing student concerns. #FeesMustFall
1 MT	@mbanjwax: Radebe: The ANC govt has since '94 made access to education a priority. NSFAS has increased to R9.5bn. #Cabinet #FeesMustFall
1 MT	@mbanjwax: Zuma concludes address by thanking all stakeholder for the constructive manner in which they conducted meeting. #FeesMustFall
1 MT	@SthembileCel: #FeesMustFall most students will meet around the country today to decide on whether or not to continue with protest action
1 MT	@SthembileCel: #FeesMustFall outside the CPT Magistrates court awaiting the release of the 23 students https://t.co/AnUuEM4BsJ
1 MT	@SthembileCel: #FeesMustFall those considering further protest say that fees have not fallen & hashtags claiming so will not derail them
1 MT	@SthembileCel: #StelliesFeesMustFall 3:07 this morning same announcement was made. Threat more serious this time. Cops are right outside
1 MT	@SthembileCel: #StelliesFeesMustFall "Don't try negotiate my pain for me," says angry student. "Zille is allowing students to get shot."
1 MT	@SthembileCel: #StelliesFeesMustFall "how can you start your exams on 27 Oct when you know you must appear before the high court in Dec"
1 MT	@SthembileCel: #StelliesFeesMustFall Agreement made that half the group will go to him. Police will not employ force for the meeting.

Figure 53—Example 2 (*City Press*): Discovery of modified tweets (MT) in the “retweeted\_status\_text” tweet-field.

As can be seen in the second *City Press* example in Figure 53, modified tweets (MT) were discovered. This example shows English content in the text. By definition, a modified tweet is considered to have been edited “slightly before retweeting it, either by shortening it” and/or by appending one’s own additional commentary to the original text of the tweet (“Twitter glossary”, n.d.).

Now that the underlying methodology has been explained, the opening question to this section can be answered. This is done next.

#### **5.11.4 Ready to answer the question: How many times were news organisations referencing external content via embedded links?**

Next, as will be seen in Figure 54 to follow, insights into certain qualitatively-determined aspects related to tweets in the featured data-set were discovered.

As a reminder: Twitter (via its API) did not provide the author of this study with native tweets fields that isolated the information that was qualitatively determined for this component of the study. Thus, it was thus for this reason that the qualitative mixed-methods component to this study was essential.

Next, a summary of the information gained from the preceding process of qualitative data analysis will be presented.

Twitter Username	Original Tweets	Retweets	Total tweets	Links to external content (via URL) for original Tweets	Modified Tweets (MT)	Duplicate Tweets
amliveonsafm	7	35	42	4	0	0
ANN7Reporter	1	0	1	0	0	0
ANN7tv	92	91	183	44	0	0
BDriveSA	2	0	2	2	0	0
CapeTalk	34	10	44	29	0	0
CapeTimesSA	12	9	21	9	0	0
City_Press	110	16	126	12	38	0
dailymaverick	60	0	60	23	0	35
dailysunsa	1	3	4	1	0	0
Die_Burger	2	10	12	2	0	0
Dispatch_DD	19	0	19	9	0	0
ECR_Newswatch	7	0	7	3	0	0
eNCA	78	56	134	32	0	0
etvSunrise	2	5	7	0	0	0
ewnreporter	173	6	179	109	0	1
ewnupdates	19	7	26	19	0	0
GrootFM	2	0	2	2	0	0
HeraldPE	16	0	16	10	0	0
ilisolezwe	4	0	4	4	0	0
IOL	24	40	64	18	0	0
JacaNews	169	2	171	35	0	0
mailandguardian	9	1	10	8	0	0
mojoIOL	29	12	41	26	0	0
MorningLiveSABC	1	0	1	1	0	0
MyNews24	4	5	9	4	0	0
Netwerk24	31	0	31	28	1	0
Netwerk24Berig	402	13	415	143	306	1
News24	28	4	32	28	0	0
POWER987News	137	4	141	54	0	0
pretorianews	1	0	1	1	0	0
Radio702	48	12	60	30	0	0
Radio2000_ZA	0	4	4	0	0	0
SABCNetwork	2	0	2	0	0	0
SABCNewsOnline	8	103	111	7	0	0
SABCNewsroom	0	44	44	0	0	0
SABCTVNews	0	27	27	0	0	0
safmmiddaylive	2	18	20	0	0	0
SAfmnews	15	0	15	0	0	0
safmpmlive	7	18	25	4	0	0
SAfmRadio	6	8	14	4	0	0
Sonkoerant	5	21	26	4	0	0
SowetanLIVE	4	0	4	4	0	0
SundayTribuneSA	0	2	2	0	0	0
The_New_Age	3	148	151	1	0	0
TheCapeArgus	11	67	78	8	0	0
TheCitizen_News	30	3	33	23	0	0
thedailyvox	189	90	279	116	0	8
TheMercurySA	0	5	5	0	0	0
TheWeekendArgus	9	34	43	0	0	0
TimesLIVE	5	8	13	5	0	0
TimesLiveNews	7	0	7	7	0	0
zanews	6	0	6	4	0	2
<b>TOTALS</b>	<b>1833</b>	<b>941</b>	<b>2774</b>	<b>877</b>	<b>345</b>	<b>47</b>
<b>Statistics summary:</b>				<b>Links to external content</b>	<b>Modified Tweets (MT)</b>	<b>Duplicate Tweets</b>
				<b>877</b>	<b>345</b>	<b>47</b>
<b>2774</b>				<b>31,61%</b>	<b>12,44%</b>	<b>1,69%</b>

Figure 54—Summary list of qualitatively-determined categories of data related to news organisations’ tweets.

As can be seen in Figure 54 there were 877 tweets where news organisations referenced external content via embedded URL links. As a percentage of total tweets, this equals 31,61%. As a percentage

of all news organisations' tweets, modified tweets amounted to 345 (or 12,44%). Lastly, there were also some instances of duplicate tweets being found in the data—these amounted to a low 47 tweets (or 1,69%).

These findings suggest the following:

- The referencing of external content via embedded URL links may be regarded as either a positive or negative form of engagement on the networked public sphere—Twitter users from the broader public will either be willing to follow these links, in order to gain more information, or they will be hesitant to do so for various reasons. This is a case for further research to be conducted.
- Whilst only two Twitter users (i.e. *City Press* and *Netwerk24Berig*) were affected by the introduction of modified tweets, due cognisance needs to be taken when making an assessment of these two news organisations' performance when discussing and comparing original tweets versus retweets.

More on this, as a final conclusion with a set of recommendations, will be factored into the next (and final) Chapter 6 of this study.

### **5.12 What additional qualitative aspects are evident in the data-set of South African news organisations' tweets—discuss?**

From the data that was analysed, nothing else of prominent noteworthiness is evident. However, it must be kept in mind that this observation and concluding remark is based upon the existing constraint of the methodology that was used for the qualitative component of this particular study. There are however, several opportunities for discovering additional insights from further research. Within the context of a presentation of possible opportunities for further study in this field of journalism research, these will be discussed in the next chapter.

This concludes Chapter 5 of this study. In the next chapter, the final research question for this study will be discussed. As such, the chapter deals with a discussion of the overall conclusions and recommendations that followed from the data analysis and research findings revealed in this chapter.



## CHAPTER 6: Conclusions and Recommendations

### 6.1. Overview of previous chapters

Chapter 1 outlined the overall framework for this study. This study was motivated by the author's initial interest in South African news organisations' tweet-activity surrounding #FeesMustFall. The research problem was that the author was unable to accurately assess what types of Twitter practices South African news organisations might be employing to share and distribute their own content. However, with meaningful insights gained from this empirical study, insights into South African news organisations' use of Twitter would be forthcoming. A brief background to the events that led to the #FeesMustFall protests was presented. The problem statement and focus was outlined, followed by a short motivation of the theoretical framework upon which this study was to be based. The primary research questions was stated—which is: **For #FeesMustFall, how did South African news organisations engage the Twitter networked public sphere?**

In order to provide a foundation for answering the aforementioned primary research question, it was necessary to determine what the nature of South African news organisations' tweets were. To facilitate this, ten secondary research questions were formulated—these were:

1. How many tweets were exclusively those of the South African news organisations—in proportion to the total data-set?
2. In relation to tweets tweeted, how many followers were there for each of the South African news organisations?
3. Who was being mentioned in the news organisations' tweets?
4. What additional hashtags were being used in the news organisations' tweets?
5. How many tweets were original (i.e. new) and how many were only retweets?
6. What was the overall tweet-volume for the date-period under review (i.e. time series graph)?
7. What was the most popular time of day for posting tweets?
8. Which was the most prominent news organisation category on Twitter (measured by volume of tweets)?
9. How many times were news organisations referencing external content via embedded links?
10. What additional qualitative aspects are evident in the data-set of South African news organisations' tweets— discuss?

Chapter 1 also presented an introduction to the research design and methodology. In particular, this involved the use of a mixed-method research design for a case study, by researching the quantitative components of the Twitter data-set with a computer-assisted (using *Tableau*®) quantitative content analysis programme, and researching the qualitative component (i.e. the tweet's text field) of the Twitter data-set by means of a qualitative content analysis. Chapter 1 closed with an outline of the chapter layout for this study.

Chapter 2 discussed the literature that was reviewed for this study. The first section dealt with news organisations, journalists, and the changing role of journalism within the age of social media. This was followed by a discussion of literature dealing with the nature of Twitter and tweets as social media, within the context of journalism. Following on from this, the literature related to Twitter in relation to news organisations and notions of the public sphere in relation to the networked public sphere was discussed. The literature review was drawn to a close with a discussion of the literature specifically related to #FeesMustFall. In short, from the literature reviewed, it was established that none of the studies in the literature review recognised the complementary nature of the media's participation (i.e. public engagement) in a networked public sphere. One of the major contentions of this study is that news organisations certainly contribute an added dimension to Twitter debates. Just how much of a contribution South African news organisation contributed in the case of #FeesMustFall will be revealed in the remaining sections of Chapter 6 of this study.

Chapter 3 discussed the theoretical framework for this study. Media functionalism, information society theory and the networked public sphere theory was combined to form a unique hybrid theoretical model which could be applied to the data-analysis for this study. Each of the following theories received a discussion of their own unique attributes. The weightiest part of the chapter dealt with the formulation of the hybrid theoretical model how media functionalism, information society theory and network public sphere theory was to be combined in such a way that it suitably addressed the research being done for this study. A diagrammatic representation of the hybrid theoretical model was discussed—both for a case-study perspective, and for a macro-view perspective. This included an in-depth discussion of each of the components that form part of the model. The chapter closed with a discussion of a primary concept emanating from both hybrid theoretical model—that of meaningful (quality) information. The author of this study asserts that it is only within the framework of this hybrid model that meaningful (quality) information is most forthcoming and valuable.

Chapter 4 dealt with the research design and methodology for this study. Mixed-method research was discussed, with unique applicability to a case study. Computer-assisted content analysis, by using

*Tableau*<sup>®</sup> as the choice computer-assistive tools for the content analysis, was discussed. As part of the discussion relating to the research methodology itself, data-gathering and the mining of the Twitter data-set was discussed. This was followed by a discussion of the way in which the individual Tweet-fields obtained via REST API were treated. Data cleaning was discussed before the chapter closed with a data sampling discussion which detailed how and why the 52 South African news organisations that featured in this study were selected and grouped into sub-categories. The chapter closed with a short discussion of some of the primary limitations of the analysis conducted for the Twitter data-set of this study.

Chapter 5 was a detailed presentation of data-visualisations to aid the answering of the 10 secondary research questions. Each sub-section dealt with one of the secondary research questions. In each case, a series of tables or visualisations (i.e. figures) were presented, followed by an accompanying short discussion of the most notable observations which were evident in each of the tables and/or visualisations. Each section ended with a short discussion of the analysis and insight gained for that particular section. The chapter thus formed the foundation of discussion for dealing with the in-depth technical aspects of the Twitter data-set, and as depicted (for ease of user interpretation) in the data visualisations and tables provided—this is one of the strengths of the computer-assistive tool used for this study (i.e. its ability to “bring out” hidden insights embedded within the Twitter data-set).

This concludes the overview of the previous chapters. In the sections to follow, the empirical findings related to the research sub-questions dealt with in Chapter 5, will now be integrated into an overall concluding discussion to answer the primary research question.

## **6.2 Empirical conclusions and recommendations**

This section discusses the contribution that this study makes to the social-scientific body of knowledge on an empirical, a theoretical and a methodological level. This section addresses the primary research question for this study—which is:

**For #FeesMustFall, how did South African news organisations engage the Twitter networked public sphere?**

For this question to have been suitably explored, it was necessary to determine what the nature of South African news organisations’ tweets were. To facilitate this, ten secondary research questions were explored and analysed. Chapter 5 dealt with the exploration and analysis of these secondary

research questions. With reference to these ten secondary research questions, a short summary of the empirically-based findings for each, follows (as discussed in detail, in Chapter 5):

### 6.2.1 Summary of empirically-based findings to ten secondary research questions

1. How many tweets were exclusively those of the (predefined) South African news organisations—in proportion to the total data-set?

News organisations' total number of tweets, in comparison to all tweets about #FeesMustFall was extremely small: 2 774 tweets. This represents a 0,74% contribution to the 376 708 tweets. (See Chapter 5, section 5.3 for full analysis and discussion.)

2. In relation to tweets tweeted, how many followers were there for each of the South African news organisations?

When ranked according to number of tweets published, certain news organisations were ranked as leaders in their respective categories. However, when the number of tweets published was compared with a news organisations' number of followers, the rankings changed significantly. A combination of number of tweets published in relation to number of followers gives rise, as the literature reviewed has suggested, to greater levels of indegree influence. (See Chapter 5, section 5.4 for full analysis and discussion.)

3. Who was being mentioned in the news organisations' tweets?

Mostly, news organisations used the Twitter @Mention function to mention the names of their own journalists—presumably journalists who were producing content related to #FeesMustFall, as well as covering the unfolding events as they may have been happening at the time. South African news organisations placed a primary emphasis on mentioning their own journalists. Secondly, embedded within their tweets, news organisations used the @Mention function to reference the Twitter accounts of their own sister-publications. For this study, it is argued that

news organisations exploited the use of Mention<sup>16</sup> influence to facilitate an impact on the networked public sphere. (See Chapter 5, section 5.5 for full analysis and discussion.)

4. What additional hashtags were being used in the news organisations' tweets?

Whilst the #FeesMustFall hashtag constituted the primary identifier used in news organisations' tweets, secondary hashtags were used. Certain news organisations showed preference for the use of other hashtags as the primary identifier in their tweets. As such, #FeesMustFall was only a secondary identifier in certain news organisations' tweets. (See Chapter 5, section 5.6 for full analysis and discussion.)

5. How many tweets were original (i.e. new) and how many were only retweets?

Some news organisations made significant use of retweets, whereas others mainly published original tweets. As such, news organisations that focused their publication efforts on the usage of retweets might have made deliberate use of Retweet influence as part of their tweet-publishing strategy. (See Chapter 5, section 5.7 for full analysis and discussion.)

6. What was the overall tweet-volume for the date-period under review?

News organisations' overall tweet volumes showed significant "spikes" in tweet-activity. As such, consistent tweet-activity spanning a protracted number of hours was not evident for most news organisations. For this reason, one can conclude that news organisations public-engagement in the networked public sphere was inconsistent and somewhat erratic. In one instance for example, the data suggests that news organisations from the Independent Newspapers category published a surprisingly low volume of tweets. Reasons for this cannot be determined from the data that was used for this study. In a case like this, the data findings may serve to flag such findings for further research. (See Chapter 5, section 5.8 for full analysis and discussion.)

7. What was the most popular time of day for posting tweets?

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<sup>16</sup> "Mention" influence (Cha *et al.*, 2010:12)—as discussed in section 4.2 of Chapter 4

For the date range under review, news organisations' tweet-activity was not as active during the first few days (15 to 20 October), when compared with the last 2 to 3 days (21 to 23 October). Although an outline of events has been provided in Section 1.3 of Chapter 1, suffice it to say that the events over this period gained impetus when students marched on Parliament (on 21 October), culminating in the pinnacle announcement (on 23 October) by President Jacob Zuma announced that there would be a zero increase for the 2016 academic year. News organisations from the Broadcast category demonstrated the most consistent hourly tweet-activity, whereas news organisations from the TMG/Kagiso category demonstrated the most inconsistent hourly tweet-activity. Lastly, the data proves that an individual news organisation's tweet-activity does not necessarily impact the tweet-activity of a combined group (i.e. collective set) of news organisations. (See Chapter 5, section 5.9 for full analysis and discussion.)

8. Which was the most prominent news organisation category on Twitter (measured by volume of tweets)?

Based on volume of Tweets, two categories stand out for the volume of tweets published. These are the Broadcast and Naspers categories. However, determining "the most prominent" individual Twitter-user is not easily determined—the author of this study believes that category prominence is necessary as part of the discussion that addresses the answering of the primary research question which is dealt with in this chapter. During the discussion that follows, the measure of prominence will be factored into the discussion which addresses the primary research question.

9. How many times were news organisations referencing external content via embedded links?

News organisations referenced external content via embedded URL links in 877 tweets. As a percentage of the total (2 774) tweets, this equates to 31,61% externally referenced content. A notable qualitative observation found that unlisted modified tweets were found in the data. These amounted to 345 (or 12,44%). Lastly, there were also some instances of duplicate tweets being found in the data: 47 tweets (or 1,69%). (See Chapter 5, section 5.10 for full analysis and discussion.)

10. What additional qualitative aspects are evident in the data-set of South African news organisations' tweets?

Within the methodological limitations of the qualitative component to this study, there was no further prominent findings evident in the data that was qualitatively analysed.

### 6.2.2 Discussion and recommendations

In part, the findings from this study supports Harper's (2010) notion of social media being of strategic importance to news organisations because it facilitates the retention of audiences, thereby sustaining news organisations' commercial profitability. Stemming from this study, there is sufficient empirical evidence to suggest that news organisations employed the equivalent of Cha, Haddadi, Benevenuto and Gummadi's (Cha *et al.*, 2010) strategy of indegree, retweet and mention influence in order to achieve this goal. However, one of the aims of this study—in order to get some idea as to the quality of their engagement in the networked public sphere—was to explore the nature of news organisations' involvement in the public discourse on Twitter.

We know that through journalism, news organisations have a social function to fulfil (Donsbach, 2014:666) and in order to do this, “content is an important influence” (Deuze, 1998, para. 1) in setting the public agenda whilst also fostering debate in the networked public sphere. Based on the data that was analysed for this #FeesMustFall case study, it is questionable just how much of a meaningful social function was fulfilled by South African news organisations made in the networked public sphere.

The 2 774 tweets (i.e. a 0.74% tweet-contribution) by South African news organisations' comprised less than 1% of the total number (i.e. 376 708) of published tweets featured in the complete Twitter data-set. As such, specifically related to #FeesMustFall, South African news organisations' tweet-activity was a very small proportion of the total number of #FeesMustFall-related tweets. This was despite that fact that news organisations' collective audience-size came close to 7.5 million Twitter followers. From the literature reviewed, we know that for the journalism industry the news media continues to experience its power being diminished (Lovink, 2007:18). Be that as it may, however, ongoing change taking place in journalism—and change to related journalistic roles too—does not make traditional journalism obsolete (Donsbach, 2014). For this reason, one of the research outcomes of this study is to recommend that South African news organisations take a considered relook at their current Twitter-content publishing strategy. For example, by implementing structured approaches to regular and consistent conducting of real-time (context-relevant) surveys, “broadcasting live events, offering alerts in real time” and providing solid and credible evidence (Herrera & Requejo, 2012: 81) that serves to corroborate certain factual claims being made in the networked public sphere. If indeed,

as the literature suggests, South African news organisations are unable to truly invest in journalism (Ndlovu, 2015:127), then the present may be an opportune time for South African news organisations to rethink where they might wish to begin investing new capital into journalism that will suitably cater for future audiences that will engage on the networked public sphere.

As stated in Chapter 2, South African news organisations could do more to refine their best practices for Twitter usage. For example, by retweeting and mentioning users not related to the news organisation itself (Herrera & Requejo, 2012: 81) thereby reducing considerable risk of engaging in ongoing inadvertent (or deliberate) self-promotional tweet-activity. Importantly however, whilst Herrera and Requejo's (2012:81) list of "good practices" might serve as a foundation for this refinement process, the author recommends that South African news organisations strive to improve upon such lists whilst also factoring the unique South African context into the solution. Such an exercise may well require significant investment of finances and time, such that this will truly transform news organisations' current overall set of social media best practices. For this reason, news organisations need to support this type of transformational exercise at the most senior executive level of the organisation, such that strategic intent can be altered in the process. This is not merely a case of slightly amending or tweaking newsroom policies and procedures.

Referencing the empirical findings from secondary research question 4 (see Chapter 5, section 5.4), the relationship between the number of tweets published versus the number of followers for a specific Twitter user suggests that one aspect to news organisations' engagement of the networked public sphere was to reach their followers—a significant number of followers in many cases. After all, we know that with the Twitter platform, the number of followers constitutes the measurable audience size of a Twitter account for a particular news organisation. For this reason, as evidenced in the literature that was reviewed for this study, Twitter is often regarded as the more effective method for reaching the audience, particularly with a view to distributing "content through social networking sites" (Ju, Jeong & Chyi, 2014:1).

Moving on, in the data analysis dealing with secondary research question 9 (see Chapter 5, section 5.11.4), 877 tweets (i.e. 31.61%) of all news organisations' tweets contained references to external content. However, it ought to be kept in mind that, as alluded to in Chapter 2 (p.22), part of the appeal with Twitter engagement is that it is "a form of participatory or citizen journalism, where citizens report without recourse to institutional journalism" (Hermida, 2010:300). As such, the public's rationale for engagement on the Twitter networked public sphere is not necessarily to get access to content originating from *bona fide* news organisations' Twitter accounts. For this reason, it is



questionable whether all the @Mentions referencing news organisations' own journalists is such a wise and necessary tweet-publishing strategy. Similarly, the tweeting strategy of referencing external content needs to be considered in this light. For example, alternate options for providing content such as an embedded live video feed might be considered much more valuable in the eyes of the public. On the contrary, a mere link to a journalist's article that is featured on a corporate news organisation's website might not be as valuable to the audience. For this reason, the strategic social media publishing operations of South African news organisations needs to be constantly re-evaluated.

From Chapter 2, a portion of the literature reviewed suggests that “[r]etweeting is consistent with the notion of opinion leadership” and as such, retweets ought to be a reflection of some degree of influence on Twitter (Xu *et al.*, 2014:1281). In this regard, secondary research question 5 did reveal that some news organisations resorted to the use of retweets only—for example: *The\_New\_Age* and *SABCNewsOnline*. Accordingly, because this study has argued for (and thus advances the need for) South African news organisations to disseminate quality information in the networked public sphere, it is questionable whether such retweeting strategies can be linked to the enhancement of a news organisations' opinion leadership status. As such, the notion of opinion leadership being achieved through retweeting is somewhat of a mismatched notion. A key opportunity for further research however, might be to determine whether certain news organisations' retweet-intensive publishing strategies on Twitter in any other way contributes to their opinion leadership status in the networked public sphere (or not)? In sum though, based on the data that was analysed for this study, seemingly only two of the three types of influence that Cha *et al.* (2010: 12) refer to might be truly worth resorting to by South African news organisations. In other words, indegree and mention influence may contribute to the quality of tweets being disseminated by South African news organisations, but not so much that of retweet influence, as this seemingly detracts from quality-journalism ideals.

What might be a worthwhile substitute variable (as opposed to looking at retweet influence), is that of *prominence*—dealt with in section 5.10. In this regard, two news organisations stand out for their prominence: Broadcast and Naspers. News organisations from these categories may be considered worthwhile candidates for further research because they have already displayed empirically quantifiable measures of prominence. Prominence could be explored as a form of influence perhaps—something for further research. With relevance to the findings gained from this study, it is evident that the collective set of South African news organisations from the Broadcast and Naspers categories could be flagged for using a “prominence-influence” publishing strategy which is worthy of further exploration. Accordingly, South African news organisations from these two categories might be good

early-candidates for further research in which the notion of “prominence-influence” could be explored in more detail.

Moving on to the issue of the tensions (referenced in the literature) between the news media and social media: the author of this study believes that the reported tensions between news organisations and social networks (Chapter 2, p.20) could be approached in a manner that sees these tensions as something positive. After all, the reciprocal nature of the relationship between news organisations and social media networks cannot be forgotten in this discussion. Knowing that social media serves to amplify messages (Beckett, 2017) already encountered on mainstream news media, it remains incumbent upon South African news organisations “to adapt to [their] new role in the networked public sphere” (Beckett, 2012:35). They will have to do this by positively aligning themselves with social media network providers. Moreover, do not forget that Beckett (2012:11) has warned that “the condition of the [social media] network [providers] can have an ethical and political as well as a material influence on the nature of the communications that it carries”. For this reason, news organisations have sufficient collective power to “partner” (with positive intention) with a social media network provider like Twitter—such that this might lead to collaborative research and development (R&D) that, for example, positively contributes to how social media and news organisations incorporate new user-interface functionalities into future releases of the social media platform like Twitter. An initiative like this might serve well to reduce some of the so-called tensions that exist between news organisations and social media networks. After all, Russell’s (2016:158) view that the networked public sphere is “less dominated by large media entities, less subject to government control, and more open to wider participation than the mass mediated public sphere” has important implications for how South African news organisations decide to position themselves in the networked public sphere of the future. Importantly, South African news organisations would be wise not to lose sight of one of the primary tenets of engagement in the networked public sphere: namely, that it is “an ecosystem of communication channels that together create a space where citizen voices and minority points of view are made visible, and where stories and sources gain prominence based on relevance and credibility rather than their connection to the powers that be” (Benkler cited in Russell, 2016: 158). News organisations, together with social media networks could do well to foster this kind of networked public sphere engagement that gives new impetus to individual citizen voices and minority points of view. In this regard, South African news organisations would be getting a lot closer to fulfilling what Bosch (2013:127) has asserted: that as more people use social media where the networked public sphere is created, the facilitating of “social interactions and information sharing” (which South African news organisations can take the lead on promoting) will go a long way

towards delivering on the mandate that news organisations serve in society—particularly in regard to providing quality information to the public.

As far as the use of Twitter hashtags goes, South African news organisations' use of #FeesMustFall was necessary to identify themselves on the networked public sphere for this particular topic of debate. Clearly, once part of the broader #FeesMustFall conversation, certain South African news organisations relied on secondary hashtags in order to shift the agenda of their preferred topics of engagement—such as #StelliesFeesMustFall, #WitsFeesMustFall and #TuksFeesMustFall which focused on specific universities and also on the #NationalShutdown hashtag which was being used to call for the nationwide shutdown in protest at the time. Luescher & Klemenčič (2017:10) have identified that “the use of multiple hashtags in tweets creates links between trending topics” which aids with the optimisation of tweets for hashtag-based searches on Twitter, as well as to “enable users to follow trends” of topics related to their interests. In this regard, South African news organisations' hashtag-usage was seemingly quite sensible. However, one must not lose sight of the importance of providing quality information in the process as well. According to normative functionalism South African news organisations must be seen to be neutral and balanced at all times of the journalistic process. But, let us be reminded that as Hermida (2016:85) has said, “the hashtag has emerged as a key method to filter information and participate in discussions on social media beyond a user's circle of contacts ...[whilst also being] harnessed as a framing device”. Similarly, Bosch (2016: 164) has said that the role of Twitter hashtags as a political source is perfect for “placing issues on the agenda for national debate and deliberation”. Therefore, South African news organisations must be careful that their subtle use of the hashtag framing device does not create the perception (within the networked public sphere) that certain news organisations are partisan to certain groups and issues being debated in the networked public sphere. For example, as the data has shown (see discussion in Chapter 5, Figure 26) for the Naspers category, the predominant use of #StelliesFeesMust by *Netwerk24Berig* and *CityPressOnline*, is suggestive of subtle intentional framing that may require further research in order to determine what the possible motives might have been for these two news organisations to have chosen these particular hashtags as their primary topic of engagement on the networked public sphere.

Likewise, be reminded that, as Daniels (2016b:176) has revealed, “hashtag activism” lends itself to “becoming a more inclusive and expansive space and is contributing to a strengthened (networked) public sphere”. However, as can be empirically motivated, South African news organisations stand to weaken the debate if the content and nature of tweet-activity being provided is not of good enough

quality to be making a true and meaningful contribution to debates taking place in the networked public sphere. For this reason, retweets (and modified tweets: MTs) serve merely to repeat and duplicate which is not necessarily making a new quality-content contribution to the debate surrounding a particular hashtag-related topic. Although Bosch (2013:127) says that people's use social media lends itself to "the creation of a networked public sphere" that contributes to the facilitation of "social interactions and information sharing", once again, South African news organisations must be aware of the potential negative contribution they might be making to debate on the networked public sphere when content they post is not of a high quality, but rather mere repetitive retweets and modified tweets. As such, tweet-activity such as this could be seen as public relations content (i.e. PR) that serves non-other than to promote the news organisation itself and not to promote content that truly lends itself towards a strengthened debate surrounding a particular topic of social interest for public engagement and consumption.

Similarly, the time when tweets are published might also be considered an important factor in the preceding argument. Most South African news organisations, but particularly the TMG/Kagiso category demonstrated inconsistent hourly tweet-activity. And whilst it was determined that an individual news organisation's tweet-activity does not necessarily significantly impact the tweet-activity of a combined group (i.e. collective set) of news organisations, it is problematic when inconsistency is evident in news organisations' tweet-publishing strategy. By virtue of the inconsistency variable itself, this contributes to questionable content-quality being published by a news organisation. To make this point somewhat easier to understand, imagine if the traditional print newspaper never came out at the same date and time—only ever to appear on the newsstands when it was published (at whatever unexpected date and time). The reading-public would have nothing reliable to turn to for their need to consistently gain access to news content. Accordingly, the author of this study contends that this very same principle ought to be the same for the tweet-activity of South African news organisations. As such, a further recommendation flowing from this study, is that South African news organisations may wish to reconsider the publishing strategy that informs the frequency, reliability and consistency of their tweets being published on the networked public sphere.

Turning the discussion to Twitter in particular, although Hermida (2013a:304) says that "long-standing distinctions between newsmaker, news reporter and news consumer" become indistinct, South African news organisations need to work hard to maintain a fair degree of distinction between itself as news organisation and that of news consumers. In this regard, some of the data suggest that South African news organisations have been disseminating content (via its tweet-activity) that is no

different to that of the news consumer (i.e. the public). This is a great risk to the expectation that high quality content comes from news organisations where professional journalism precedes the content it produces. As such, South African news organisations must endeavour where reasonably possible, to stop this from happening. This might be done by refining its tweet-activity in such a way that the publication of tweets is far more in-line with that of journalistic endeavour of news organisations.

To conclude this discussion, with relevance to this #FeesMustFall case study, the author is of the view that the motivations advanced herein serve well to provide a credible and solid empirical platform to facilitate the interpretation and description of the nature of South African news organisations tweet-activity in the networked public sphere. As a direct consequence, the author of this study was able to describe how South African news organisations engaged the Twitter networked public sphere on the issue of #FeesMustFall. This answers the primary research question of this study.

### **6.3 Theoretical conclusion and recommendation**

The theoretical framework which this study was founded upon, is a hybrid model that intentionally combines media functionalism, information society theory, and networked public sphere theory. On their own, each of these theories would have provided insufficient theoretical foundation to inform the analysis needed for this study. Chapter 3 of this study provides full and comprehensive discussion of the approach taken, and the reasons for combining these three theories. Importantly, the hybrid theoretical model was best-applied when the unique set of conditions for this case study were combined into a case for structured empirical research. As such, as depicted in the diagrammatic representation of the hybrid theoretical model (case study view)—seen in section 3.6.1, Figure 1—it is important that due cognisance be taken of the conditions that lead to overlapping, which in turn triggers the cross-application of the three theories. With the hybrid theoretical model that was developed for this study, it has been theorised that it is only in the overlapping zone where interactive communication between individual Twitter users and corporate news organisations can engage in its optimum form—i.e. this is the ideal networked public sphere space where meaningful (quality) journalistic-type information can be exchanged and meaningful audience engagement can take place. As such, the richness of debate and reasoned discussion of politics of taking place in the networked public sphere is significantly dependent upon the richness of news organisations' meaningful (quality) journalistic-type information being contributed therein.

For future application in other hashtag-type research contexts, it is recommended that when such ideal overlapping conditions have been delineated by the researcher, the basic tenets of this hybrid

theoretical model can be applied to similar case studies, under similar conditions, provided that researchers will be looking to explore and analyse a closely similar set of secondary research questions as researched in this study.

#### **6.4 Methodological conclusion and recommendation**

This study made use of a mixed-method research design to explore the hashtag-based (#FeesMustFall) case study. The case study approach was particularly well-suited to one of the objectives of this study, namely, to offer a set of findings where the hybrid theoretical model can be applied in future case studies with a similar set of research conditions. The quantitative component of the Twitter data-set was explored using the computer-assistive software tool called *Tableau*<sup>®</sup>. Two additional tweet-fields from the Twitter data-set required a qualitative approach to be taken in order to extract further meaning from the data-fields. For this reason, a qualitative content analysis was used for these two tweet-fields. The qualitative part of this study was necessary in order to give a richness to the data being explored and analysed—a richness which would not otherwise have been evident from a pure quantitative analysis alone. The researcher's reliance upon *Tableau*<sup>®</sup> was pivotal for this study. The author of this study fully supports Ausserhofer and Maireder's (2013: 297) view that the visualisations contribute toward the distilling of data, such that more clarity can be brought to the overall discussion and analysis of such a hashtag-based study. Section 4.2.4 of Chapter 4 deals with the computer-assistive tools for content (i.e. data) analysis in significant detail.

It is likely that future research might be able to employ the use of more complex algorithmic-type programmatic computer instructions to supplement the qualitative process used in this study. Regarding recommendations for future research projects, the author of this study is of the view that the nature of a the data structure of Twitter data-sets is such, that some degree of manual inspection with “the human eye” will always be a necessary part of hashtag-related research, in order to identify and extract anomalies that might not always be evident in the Twitter data-set.

#### **6.5 Opportunities for further research**

When considering further research, the author of this study believes that this needs to be interconnected with looking at the issue of the future of journalism studies too. Russell (2016: 160) offers a viewpoint as to where future research might be directed. Russell (2016: 160) says that

in order to continue to answer these pressing questions [through research], we need to train our focus on what networked publics and journalists [and by extension, news organisations] can and are doing with media rather than what journalism does to the public.

To the author's best knowledge, no such prior study (using this exact-same research design) has been performed. Specifically, there is no in-depth (rich) historic collection of case studies that have examined Twitter-data in order to gain insights into South African news organisations' tweet-activity. As such, this study may offer a new perspective on understanding how news organisation (within the broader journalism industry) are currently making tweet contributions to identifiable hashtag conversations. The case study approach to this study is particularly advantageous in that it may produce "clues and ideas for further research" (Wimmer & Dominick, 2005: 137). A natural progression (specifically) to this study related to #FeesMustFall, would be to research a comparison of the 2015 #FeesMustFall round of protest action-related tweets that featured on Twitter, with that of the 2016 #FeesMustFall round of follow-on protest action-related tweets presently (at time of writing) being featured on Twitter.

The author is of the view that by gaining an understanding of the way in which news organisations use their Twitter accounts to leverage the use of hashtag-related Twitter debates may lead to the formulation of a more robust tweeting model which is more universally acceptable to news organisations. Future research projects could explore more in-depth methods for software-automated analyses to be applied to hashtag conversations taking place in the networked public sphere, in real-time (i.e. as-it-is-happening). The computer-assistive tool (i.e. *Tableau*<sup>®</sup>) used for this study is particularly well-suited to this end—i.e. for real-time analysis of large data-sets that are continually being updated and appended with new data on an ongoing basis.

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