



# Going for gold – opportunities for Universities to open up their research

*Ina Smith*

*Stellenbosch University*

*UFS Seminar on Open Access to Knowledge in the Sciences*

*and Humanities, 24 October 2011*

[openaccessweek.org](http://openaccessweek.org)

# Research – the what and the why

- Search for **knowledge**
- Establish novel **facts**
- Solve new or existing **problems**
- Prove new **ideas**
- Develop new **theories**
- Use **scientific methods**
- **Why?** To make the world a better place



# Open Access

“**Unrestricted online access** to articles published in scholarly journals”

Source: [http://en.wikipedia.org/wiki/Open\\_access\\_\(publishing\)](http://en.wikipedia.org/wiki/Open_access_(publishing))

“Open-access (OA) literature is digital, online, **free of charge**, and free of most copyright and licensing restrictions”

Source: <http://www.earlham.edu/~peters/fos/overview.htm>



# If access to information is open ...



**It can help save lives**



# If access to information is open ...



**It can help prevent corruption**

# If access to information is open ...



## It can help improve education



# If access to information is open ...



## It can help save our planet



# If access to information is open ...



**It can stimulate new ideas**

**If access to information is open ...**



**Plagiarism can be detected easier**

# If access to information is open ...



Duplication can be avoided



# If access to information is open ...

**The New York Times**

Internet Ruffles Pricey Scholarly Journals

By D.D. GUTTENPLAN

Published: September 18, 2011

Yet all academics need to publish their work — to share and validate their research and also, crucially, to advance their careers. A scholar who does not publish regularly generally does not get promoted, making for a one-sided relationship with publishers.

**Research findings can be shared and validated**



# If access to information is open ...

*The New York Times*

Internet Ruffles Pricey Scholarly Journals

By D.D. GUTTENPLAN

Published: September 18, 2011

“Scholars write journal articles for impact, not for money,” said Peter Suber, a fellow at Harvard University’s Berkman Center for the Internet and Society. “And while there are a lot of misunderstandings most people understand that open access is not like file sharing music or video piracy. Open access relies on the copyright holder’s consent.”

**It can increase the impact of your research**



**If access to information is open ...**



**Your research becomes highly visible**



# If access to information is open ...

**The New York Times**

## Internet Ruffles Pricey Scholarly Journals

By D.D. GUTTENPLAN

Published: September 18, 2011

Universities pay millions of dollars a year for academic journal subscriptions. People without subscriptions, which can cost up to \$25,000 a year for some journals or hundreds of dollars for a single issue, are often prevented from reading taxpayer funded research. **Individual articles** are also commonly locked behind pay walls.

## It can become more affordable



# If access to information is open ...

**theguardian**

## Publish-or-perish: Peer review and the corruption of science

Pressure on scientists to publish has led to a situation where any paper, however bad, can now be printed in a journal that claims to be peer-reviewed

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David Colquhoun  
[guardian.co.uk](http://guardian.co.uk), Monday 5 September 2011 13.59 BST

There is an alternative: publish your paper yourself on the web and open the comments. This sort of post-publication review would reduce costs enormously, and the results would be open for anyone to read without paying. It would also destroy the hegemony of half a dozen high-status journals. Everyone wants to publish in Nature, because it's seen as a passport to promotion and funding. The Nature Publishing Group has cashed in by starting dozens of other journals with Nature in the title.

## It can allow for post-publication peer-review





How can researchers help  
promote Open Access to  
Information?



# 3 ways ...

- 1 Publish in an **OA journal (Gold route)**
- 2 **Publish/Host** and digitally preserve your own OA journal titles using e.g. OJS (**Gold route**)
- 3 Deposit a copy of all post-print articles, incl. other research related material in your **institutional repository (Green route)**



1

# Publish in an OA journal

<http://www.doaj.org/>

The screenshot shows the DOAJ (Directory of Open Access Journals) website. At the top left is the DOAJ logo and the text "DIRECTORY OF OPEN ACCESS JOURNALS". A language dropdown menu is set to "English". A navigation sidebar on the left includes links for Search, Browse, Suggest a journal, About, Support DOAJ!, Statistics, and Contact. Below these are sections for "Journals added last 7 days" and "Journals added last 30 days", and buttons for "Open Access info" and "For publishers". The main content area is divided into "Journals" and "Articles" sections, each with a search input field and a "Search" button. The "Articles" section includes a search tip and a dropdown menu for "All Fields". A "NEWS" section on the right lists recent updates, such as "19/10 2011: DOAJ Promotion material available for OA Week" and "15/9 2011: 7000 journals and the DOAJ site in Turkish". Below the news is a "DOAJ AS OF TODAY" section with statistics: 7207 journals, 3345 journals searchable at article level, and 651956 articles. The footer contains logos for LUND UNIVERSITY, INASP (International Network for the Availability of Scientific Publications), National Library of Sweden, SVENSK BIBLIOTEKS FÖRENING (Sponsor of Long term archiving), Springer (science+business media), and BioMed Central (The Open Access Publisher).



# OA Titles Accredited by DHET

ISI, IBSS & SA DHET - FOR 2012 SUBMISSION							
TITLE	LIST	COUNTRY	ISSN	E-ISSN	PUBLISHER'S DETAILS	Subject classification	International Accreditation - SA JOURNALS
4Or-A Quarterly Journal Of Operations Research	ISI SCIENCE	Germany	16194500	1614-2411			
A + U-Architecture And Urbanism	ISI ARTS & HUMANITIES	Japan	03899160				
A Contrario	IBSS	Switzerland	1660-7880		Revue	Interdisciplinary	
Aaa-Arbeiten Aus Anglistik Und Amerikanistik	ISI ARTS & HUMANITIES	Germany	01715410				
Aaohn Journal	ISI SCIENCE	United States	08910162				
Aaohn Journal	ISI SOC SCIENCE	United States	08910162				
Aapg Bulletin	ISI SCIENCE	United States	01491423				
Aaps Journal	ISI SCIENCE	United States	15507416	1550-7416			
Aaps Pharmscitech	ISI SCIENCE	United States	15309932	1530-9932			
Aatoc Review	ISI SCIENCE	United States	15328813				
Abacus: Journal Of Accounting, Finance And Business Studies	IBSS	United Kingdom	0001-3072		Blackwell	Economics (core)	
Abacus-A Journal Of Accounting Finance And Business Studie	ISI SOC SCIENCE	Australia	13072	1467-6281			
Abdominal Imaging	ISI SCIENCE	United States	09428925	1432-0509			
Abhandlungen Aus Dem Mathematischen Seminar Der Univers	ISI SCIENCE	Germany	00255858				
Abstract And Applied Analysis	ISI SCIENCE	United States	10853375	1687-0409			
Abstracts Of Papers Of The American Chemical Society	ISI SCIENCE	United States	00657727				
Academia-Revista Latinoamericana De Administracion	ISI SOC SCIENCE	Colombia	10128255				
Academic Emergency Medicine	ISI SCIENCE	United States	10696563	1553-2712			
Academic Medicine	ISI SCIENCE	United States	10402446				
Academic Pediatrics	ISI SCIENCE	United States	18762859				
Academic Psychiatry	ISI SOC SCIENCE	United States	10429670				
Academic Radiology	ISI SCIENCE	United States	10766332				
Academy Of Management Annals	ISI SOC SCIENCE	United States	19416067				
Academy Of Management Journal	ISI SOC SCIENCE	United States	00014273				
Academy Of Management Journal	IBSS	U.S.A.	0001-4273		Academy of	Economics (core);	
Academy Of Management Learning & Education	ISI SOC SCIENCE	United States	1537260X				
Academy Of Management Perspectives	ISI SOC SCIENCE	United States	15589080				
Academy Of Management Perspectives	IBSS	U.S.A.	1558-9080		Academy of	Economics (core)	
Academy Of Management Review	ISI SOC SCIENCE	United States	03637425				
Academy Of Management Review	IBSS	U.S.A.	0363-7425		Academy of	Economics (core)	
Academy Of Marketing Science Review	IBSS	U.S.A.	1526-1794		Academy of	Economics	
Acadiensis	ISI ARTS & HUMANITIES	Canada	00445851				
Acadiensis: Journal Of The History Of The Atlantic Region	IBSS	Canada	0044-5851		University of New	Politics	

# Accredited Open Access Title at UFS registered with DOAJ

<http://www.ufs.ac.za/templates/journals.aspx>



**ASSAf SciELO:** [http://www.scielo.org.za/scielo.php?script=sci\\_serial&pid=1015-8758&lng=en&nrm=iso](http://www.scielo.org.za/scielo.php?script=sci_serial&pid=1015-8758&lng=en&nrm=iso)

**Sabinet:** [http://www.journals.co.za/ej/ejour\\_theolog.html](http://www.journals.co.za/ej/ejour_theolog.html)

**UFS:** <http://www.ufs.ac.za/templates/journals.aspx?journal=5>

**AJOL:** <http://www.ajol.info/index.php/actat/issue/archive>




## 2

# Host your own OA journal titles

- AOSIS, ASSAf SciELO, AJOL, SU
- Self-hosting using e.g. OJS Open Source journal management & publishing system
- More than just a web page
- E-workflow
- Digitally preserve journals with LOCKSS
- Non-profit
- Library – role is changing
- <http://pkp.sfu.ca/?q=ojs>



# Example OA journal



**Per Linguam**  
A Journal of Language Learning  
Tydskrif vir Taalaanleer

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Home > Vol 27, No 1 (2011) > **Kapp**

“There’s a hippo on my stoep’: Constructions of English second language teaching and learners in the new National Senior Certificate  
*Rochelle Kapp, Moeain Arend*

Abstract

*The focus of this paper is an analysis of the conceptualisation of language teaching and the construction of learners in the new National Senior Certificate grade 12 curriculum and examinations taken by students for whom English is an additional language. The paper examines the values, attitudes and beliefs, as well as the required levels of cognitive engagement and notions of reading and writing. The authors argue that the curriculum represents a significant improvement on the previous version. However, there is a considerable mismatch between the Curriculum Statement and the examination papers. The curriculum emphasis on the role of language as a tool for critical, independent thinking is not evident in the examination papers, which reinforce traditional gender norms and essentialised notions of Africa. The examination papers are cognitively undemanding, requiring only the most basic understandings of texts. The authors argue that, by making it possible to pass at a very basic level, the examination system in effect obscures the contradiction that although the majority of learners have to use English as a first language across the curriculum, the language itself is taught as a second language.*

Keywords

Second language teaching; English; national senior certificate

Full Text: [PDF](#)

Refbacs

There are currently no refbacks.

ISSN 2224-0012 (online); ISSN 0259-2312 (print)

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8 DHET accredited  
Peer-reviewed  
Manage their own journals

<http://perlinguam.journals.ac.za>





# Important when hosting a journal

- Choice of software e.g. OJS
- Open standards
- Domain name e.g. **perlinguam.journals.ac.za**
- DOI prefix for each journal title
- EISSN
- Metadata
- Back-up's
- **Digital preservation** using LOCKSS
- Register with directories, harvesters, Wikipedia
- DHET accreditation & ISI impact factor



## 3

# Establish an Institutional Repository



SUNScholar Research Repository



[SUNScholar Home](#)  [Community List](#)

## SUNScholar Research Repository – University of Stellenbosch

SUNScholar is an electronic archive for the collection, preservation and distribution of digital theses, dissertations, research articles, inaugural addresses, conference proceedings etc and is built using [open internet standards](#) with [open source software](#).

Please use the standards based [Mozilla Firefox](#) or [Google Chromium](#) internet browsers when working on this repository.

Click [here](#) for help and check the links in the page footer for further information.

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# Strategic Objective of University

RESEARCH AT STELLENBOSCH 2010

## FOREWORD

Prof. H. Russel Botman, Rector and Vice-Chancellor

Research at Stellenbosch University (SU) is guided by two notions – excellence and relevance. The idea is to put the best science possible at the service of society. In this way the University strives to provide hope by helping to make the world a better place for all.

Our core activities – which are teaching and learning, research and community interaction – are guided by five key themes from the local and international development agendas. We are convinced that if we work to eradicate poverty and related conditions; promote human dignity and health, and democracy and human rights; encourage peace and security, and support a sustainable environment and a competitive industry, we would have put science to good use.

We call this our HOPE Project. Across our faculties and management structures, our leaders, researchers, academics and students have developed a range of initiatives designed to give expression to our development themes. From inventing an affordable “tea bag” filter that can produce safe drinking water for vulnerable individuals to extending the training of medical doctors into underserved rural areas, SU scientists and academics have consistently excelled at producing useful research and technology. They have proven to be true experts – not only at generating and transferring knowledge, but also at applying it to the benefit of communities in need.

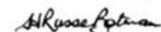
The way that our academics collaborate across disciplines and institutions in the search for solutions to some of humanity’s most intractable problems has become a hallmark of SU’s efforts to craft new futures for all the people of South Africa and the rest of our continent. SU forms part of initiatives by the National Research Foundation, the Department of Science and Technology and others to make Africa competitive in the international knowledge economy.

We are investing a lot of energy in international research collaboration, and in forging links with scientists and institutions elsewhere in Africa. The goal is to make the continent’s voice heard, so that the syndrome of dependency can be reversed and higher education can be strengthened as a resource for Africa’s development.

In October 2010, we became the first African university to sign the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. SU has established an open access repository, in which we are encouraging our researchers to deposit their output. It is called SUNScholar, and it can be accessed at <https://scholar.sun.ac.za>.

Our vision for South Africa and the rest of the African continent is a future free from poverty, where the human dignity of all people is protected, where our social and ecological systems are healthy, and where peace, security and democracy are safeguarded. We want to play a role in realising this vision.

This publication is an expression of the importance we place on sharing our science and research with others for the benefit of society as a whole. Enjoy!



Prof. H. Russel Botman  
Rector and Vice-Chancellor



“Our vision for South Africa and the rest of the African continent is a future free from poverty, where the human dignity of all people is protected ...

This publication is an expression of the importance we place on **sharing our science and research with others** for the benefit of society as a whole!” – Prof H Russel Botman, Research at Stellenbosch University 2010



# What is an Institutional Repository

- Set of services
- Management & dissemination of digital materials
- Organizational commitment
- Stewardship
- **Long-term preservation**
- Organization
- **Open access/** distribution  
(Lynch 2003)



OpenDOAR - Home Page - Directory of Open Access Repositories - Mozilla Firefox

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www.opendoar.org

# OpenDOAR

Directory of Open Access Repositories

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## The Directory of Open Access Repositories - OpenDOAR

[Search for repositories](#) | [Search repository contents](#) | [List of repositories](#) | [Repository Statistics](#)

OpenDOAR is an authoritative directory of academic open access repositories. Each OpenDOAR repository has been visited by project staff to check the information that is recorded here. This in-depth approach does not rely on automated analysis and gives a [quality-controlled](#) list of repositories.

As well as providing a simple [repository list](#), OpenDOAR lets you [search for repositories](#) or [search repository contents](#). Additionally, we provide tools and support to both repository administrators and service providers in sharing best practice and improving the quality of the repository infrastructure. Further explanation of these features is given in a project document [Beyond the list](#).

The current directory lists repositories and allows breakdown and selection by a variety of criteria - see the [Find](#) page - which can also be viewed as [statistical charts](#). The underlying database has been designed from the ground up to include in-depth information on each repository that can be used for search, analysis, or underpinning services like text-mining. The OpenDOAR service is being developed incrementally, developing the current service as new features are introduced. A list of [Upgrades and Additions](#) is available.

Developments will be of use both to users wishing to find original research papers and for service providers like search engines or alert services which need easy-to-use tools for developing tailored search services to suit specific user communities.

[OpenDOAR](#) is one of the SHERPA Services including [RoMEO](#) and [JULIET](#), run by the [Centre for Research Communications](#) (CRC). Current development work is [currently funded](#) by [JISC](#), with contributions from the CRC host organisation, the [University of Nottingham](#).

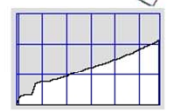
OpenDOAR has also been identified as a key resource for the Open Access community ([K.B. Oliver & R. Swain, 2006](#) - PDF) and identified as [the leader in repository directories](#) in a study by [Johns Hopkins University](#). OpenDOAR was one of the services which contributed to [SHERPA](#) being awarded the [2007 SPARC Europe Award for Outstanding Achievements in Scholarly Communications](#).

More information on the project is available on this site through the [About](#) page.

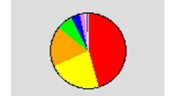
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**OpenDOAR has over 2000 listings!**



Growth of the OpenDOAR Database



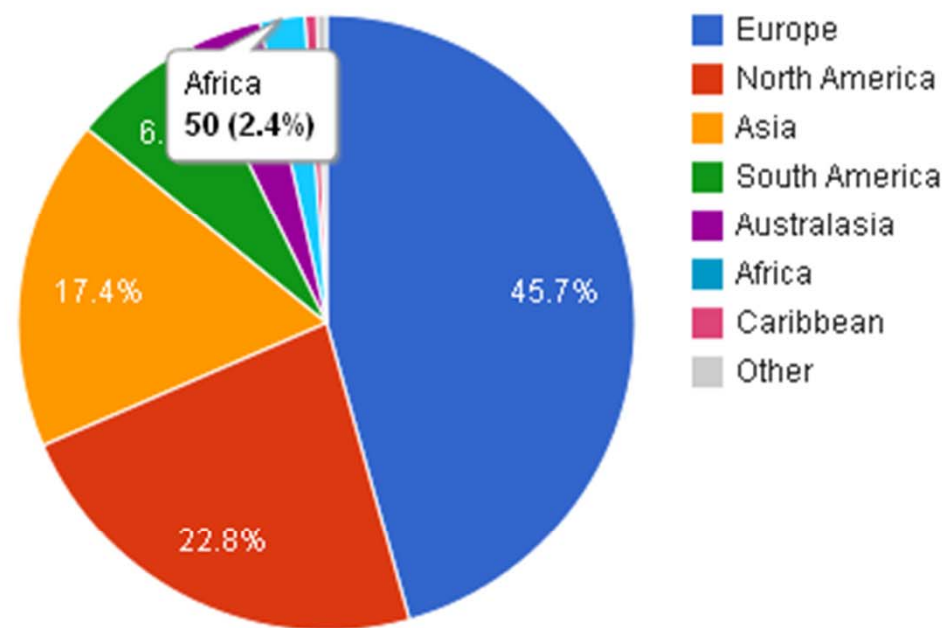
Repositories by Continent



<http://www.opendoar.org/find.php>



### Proportion of Repositories by Continent - Worldwide

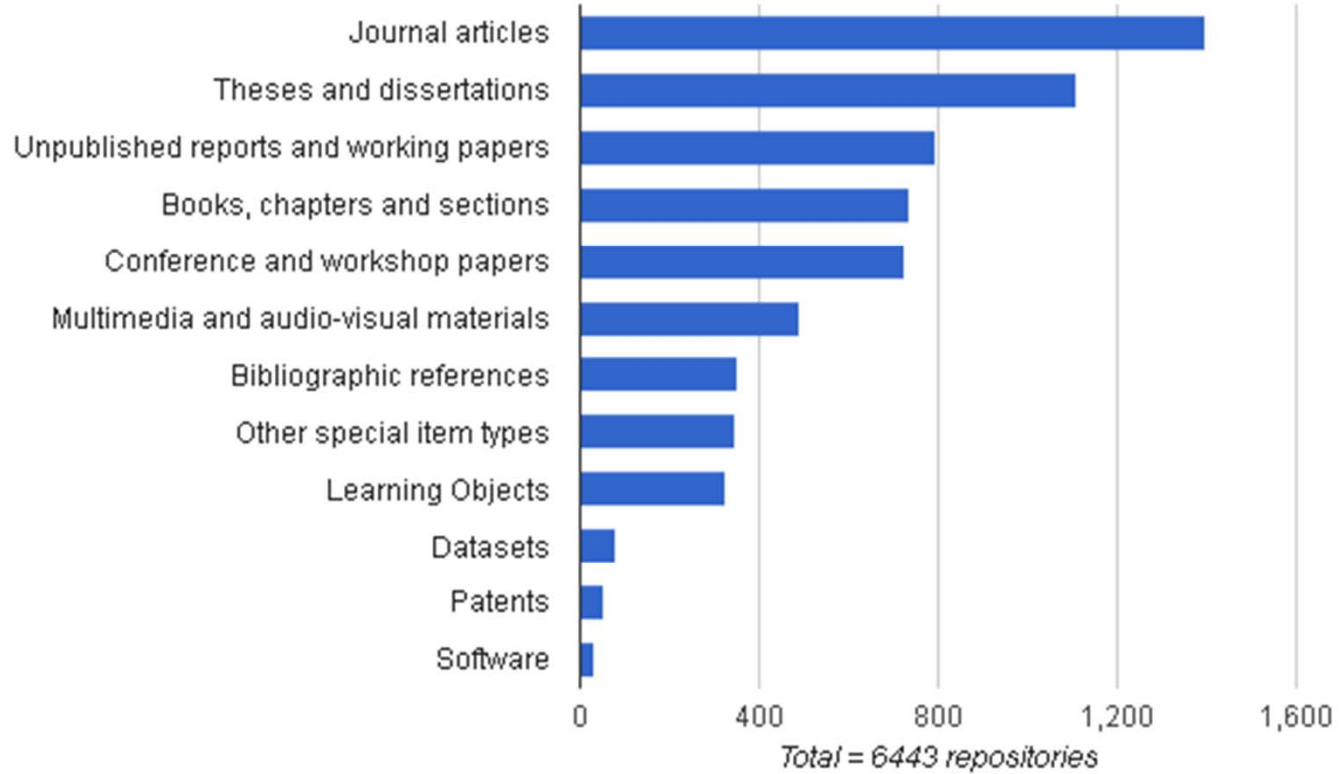


Total = 2124 repositories

OpenDOAR - 23-Oct-2011

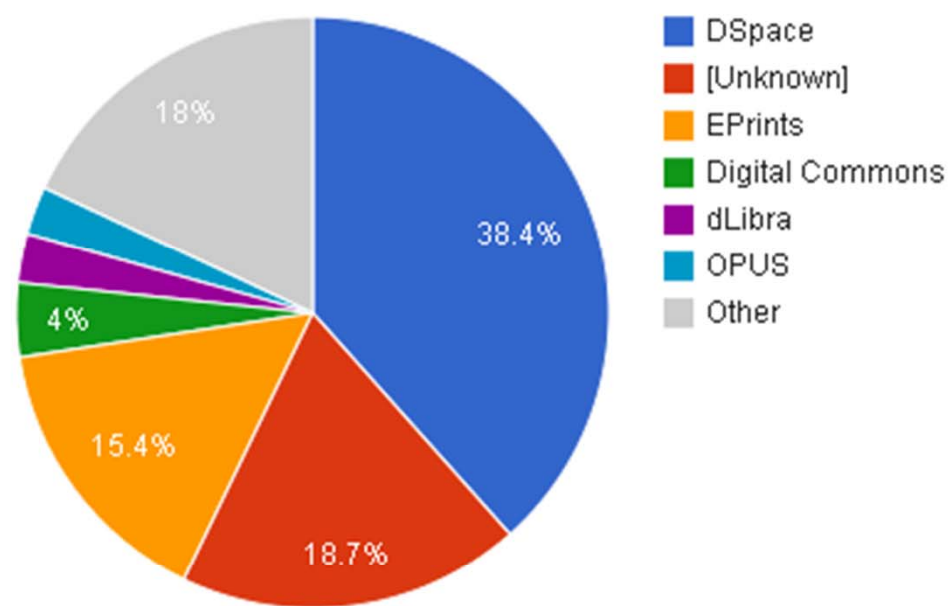


### Content Types in OpenDOAR Repositories - Worldwide



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### Usage of Open Access Repository Software - Worldwide



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- Increases **visibility, usage, impact, citations**
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- Build on **completed research**
- **Persistent URL's**
- **Full text** fully searchable
- Etc.





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- [Department of Industrial Engineering](#) [63]
- [Department of Mechanical and Mechatronic Engineering](#) [137]
- [Department of Process Engineering](#) [118]
- [Faculty of Engineering \(former Departments\)](#) [1]

### Recent Submissions

[The effect of process variables on the dispersion process with applications to paint processing](#)

Kazembe, Callisto (*Stellenbosch : University of Stellenbosch*, 2011-10)

[The safety and comfort of a patient during robot-based positioning for accurate radiotherapy](#)

Von Hoesslin, Neil (*Stellenbosch : University of Stellenbosch*, 2004-12)

[Data capturing system using cellular phone, verified against propagation models](#)

Visser, Schalk W. J. (Schalk Willem Jacobus) (*Stellenbosch : University of Stellenbosch*, 2004-12)

[Speech generation in a spoken dialogue system](#)

Visagie, Albertus Sybrand (*Stellenbosch : University of Stellenbosch*, 2004-12)

[Design and implementation of a DSP based controller for power electronic applications](#)

Van Heerden, Gerhard Johann (*Stellenbosch : University of Stellenbosch*, 2003-04)

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- [Research Articles \(Mechanical and Mechatronic Engineering\)](#) [3]

### Recent Submissions

[The verification of seat effective amplitude transmissibility \(SEAT\) value as a reliable metric to evaluate dynamic seat comfort](#)

Van der Westhuizen, Anriette (*Stellenbosch : University of Stellenbosch, 2004-12*)

[Solar Tower Power Plant Performance Characteristics](#)

Pretorius, Johannes Petrus (*Stellenbosch : University of Stellenbosch, 2004-04*)

[Thermo-economic analysis of a french fries processing plant at Lambert's Bay](#)

Potgieter, Johan (*Stellenbosch : University of Stellenbosch, 2004-12*)

[Development of a range of air-to-air heat pipe heat recovery heat exchangers](#)

Meyer, Meyer (*Stellenbosch : University of Stellenbosch, 2004-12*)

[A numerical analysis of the flow field surrounding a solar chimney power plant](#)

Harris, Rhydar Lee (*Stellenbosch : University of Stellenbosch, 2004-04*)

[The effect of ionization of spray on the wetting characteristics of an adiabatically cooled heat exchanger](#)

Esterhuyse, Bernard de Waal (*Stellenbosch : University of Stellenbosch, 2004-12*)

[The simulation of the flow of polymer melt in lomolding](#)

Dymond, Jacques Andrew Dryden (2004-12)

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#### Search type

#### Search for

Type

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AND

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sheep

AND

Full Text

Results/page 10

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in order descending

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# Types of research material

- Primary:
  - **Research Articles**, Chapters in Books, Books, **Conference Proceedings**, **Theses**, **Dissertations**
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# Chapters in Books

**Review of Optimization Techniques**

G. Venter

*Department of Mechanical and Mechatronic Engineering  
Stellenbosch University  
Private Bag XI Matieland 7602  
South Africa*

ABSTRACT

A basic overview of optimization techniques is provided. The standard form of the general non-linear, constrained optimization problem is presented, and various techniques for solving the resulting optimization problem are discussed. The techniques are classified as either local (typically gradient-based) or global (typically non-gradient based or evolutionary) algorithms. A great many optimization techniques exist and it is not possible to provide a complete review in the limited space available here. Instead, an effort is made to concentrate on techniques that are commonly used in engineering optimization applications. The review is kept general in nature, without considering special cases like linear programming, convex problems, multi-objective optimization, multi-disciplinary optimization, etc. The advantages and disadvantages of the different techniques are highlighted, and suggestions are made to aid the designer in selecting an appropriate technique for a specific problem at hand. Where possible, a short overview of a representative method is presented to aid the discussion of that particular class of algorithms.

**KEY WORDS:** Local algorithms; Gradient-based algorithms; Global algorithms; Non-gradient based algorithms; Evolutionary algorithms; Global optimization

1. INTRODUCTION

Before starting a review of the available optimization techniques, it is useful to present the standard form of the general optimization problem that will be solved by these techniques. The standard form for a single-objective, non-linear, constrained optimization problem is provided in Eq. 1 below.

$$\begin{aligned} \text{Minimize: } & f(\mathbf{x}) \\ \text{Subject to: } & g_j(\mathbf{x}) \leq 0 \quad j = 1, m \\ & h_k(\mathbf{x}) = 0 \quad k = 1, p \\ & x_{iL} \leq x_i \leq x_{iU} \quad i = 1, n \end{aligned} \quad (1)$$

In Eq. 1,  $f(\mathbf{x})$  represents the objective (or goal) function,  $g_j(\mathbf{x})$  an inequality constraint and  $h_k(\mathbf{x})$  an equality constraint function. The  $\mathbf{x}$  vector represents the  $n$  design variables that are modified to obtain the optimum. The searchable design space is defined by the upper and lower bounds,  $x_{iL}$  and  $x_{iU}$ , of the design variables, referred to as the side constraints. In the general case, the objective and constraint functions can be linear or non-linear and can be explicit or implicit functions. Implicit functions

Encyclopedia of Aerospace Engineering, Edited by Richard Blocky and Wei Shyy,  
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# Theses & Dissertations

NUMERICAL MODELLING OF THE SNOW FLOW CHARACTERISTICS  
SURROUNDING SANAE IV RESEARCH STATION, ANTARCTICA

Dissertation approved for the degree

Doctor of Philosophy in Engineering Science  
(Mechanical Engineering)

by

  
JOHANNES HENRICUS MEIRING BEYERS

in the Faculty of Engineering  
Department of Mechanical Engineering  
University of Stellenbosch  
Stellenbosch, South Africa

December 2004

Promotor:  
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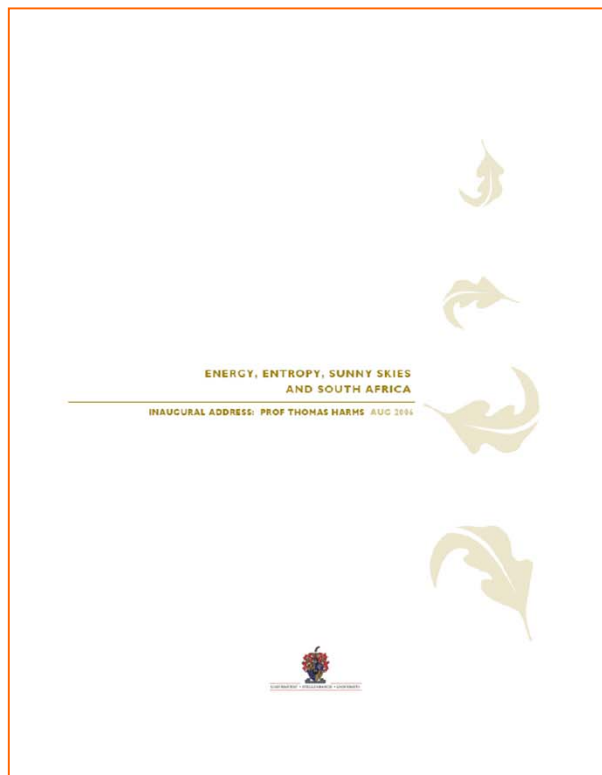
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# Presentations



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Investigation into the semiochemical communication involved in neonatal offspring recognition in sheep/Viviers, Marelize Zaretha

Thesis (PhD (Chemistry and Polymer Science))--University of Stellenbosch, 2010.





HKU ResearcherPage: Samaranyake, LP

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- Dean, Faculty of Dentistry
- Chair of Oral Microbiology

Research Interests:

- Biology and clinical epidemiology of oral Candida infections.
- Oral microbiology and pathology of HIV-infected and other compromised individuals.
- Periodontal microbiology.
- Oral oncology.

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	<b>Title</b>	The antimicrobial efficacy of Fructus mume extract on orthodontic bracket: a monospecies-biofilm model study in vitro
	<b>Authors</b>	Chen, Y Wong, RWK Seneviratne, CJ Hägg, U Mcgrath, C Samaranayake, LP Kao, R
	<b>Issue Date</b>	2011
	<b>Publisher</b>	Pergamon. The Journal's web site is located at <a href="http://www.elsevier.com/locate/archoralbio">http://www.elsevier.com/locate/archoralbio</a>
	<b>Citation</b>	Archives of Oral Biology, 2011, v. 56 n. 1, p. 16-21 <a href="#">[How to Cite?]</a>
	<b>Abstract</b>	OBJECTIVE: the aim of this study was to evaluate the antimicrobial efficacy of Traditional Chinese Medicine Fructus mume on a monospecies-biofilm model established on orthodontic brackets in vitro. MATERIALS AND METHODS: the antimicrobial effect of Fructus mume aqueous extract on the planktonic Streptococcus mutans (S. mutans) was tested by microdilution method (MIC). The cell viability of S. mutans biofilm on Damon3 MX bracket (Ormco, USA) after exposed to Fructus mume extract was quantified by XTT reduction assay. Visualization of the samples was performed by fluorescence microscope and confocal laser scanning microscopy (CLSM). RESULTS: HPLC analysis revealed that the main compounds of Fructus mume are organic acids. The MIC of Fructus mume extract on the planktonic S. mutans was 50mg/mL. The optical density (OD) values, measured by XTT reduction assay from S. mutans biofilms after 1-min exposure to different test agents, demonstrated that the cell viability of S. mutans biofilms exposed to 250mg/mL Fructus mume extract < BHI (-) (p<0.01). Microscope image showed that Fructus mume extract obviously increased the amount of dead bacteria on the surface of bracket. CONCLUSION: Fructus mume extract showed antimicrobial effect on S. mutans biofilm on orthodontic bracket in vitro which may indicate its potential use as an oral antimicrobial agent for orthodontic patients.
	<b>ISSN</b>	0003-9969 2010 Impact Factor: 1.463
	<b>DOI</b>	<a href="http://dx.doi.org/10.1016/j.archoralbio.2010.08.006">http://dx.doi.org/10.1016/j.archoralbio.2010.08.006</a>
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**Introduction**

Previous research showed the placement of orthodontic brackets does create new locations for plaque retention, thereby increasing plaque adhesion and the inflammatory response (1, 2). Moreover, the morphology and architecture of the orthodontic bracket, as well as the ligation mode, may play a role by providing new areas of retention and protection from plaque-removal forces thus facilitating dental plaque accumulation and maturation (3, 4).

Bacterial plaque plays an essential role in the etiology of periodontal disease and dental caries (5). Aside from daily mechanical hygiene practices, chemical antimicrobial agents have been widely used to improve efficiency of mechanical plaque control in recent decades (6, 7). The main advantage of mouthwashes is its ability to deliver antimicrobial ingredients and benefits to all accessible surfaces in the mouth, including interproximal hard and soft tissues, and remains active for extended periods (8, 9). Since it is hard to fully clean the bracket by mechanical measurement, orthodontic patients are likely to benefit more from daily using mouthrinse (10, 11).

Chlorhexidine (CHX) is regarded as the most effective antibacterial agent for chemical plaque control and has been routinely recommended to orthodontic patients (12). However, side effects to CHX treatment such as alteration taste sensation, tooth discoloration, desquamation and soreness of the oral mucosa have limited its long term usage (13). Therefore, the interest to explore alternative agent, especially agents from natural plants which people are viewed as being safer than synthetic chemicals, and have become increasing in recent decades (14, 15).

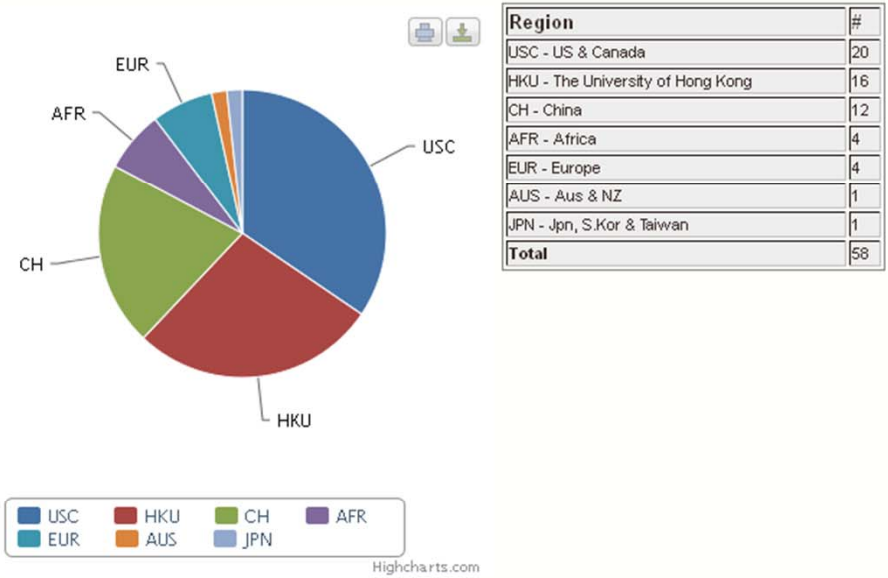
Fructus mume (also known as Japanese Apricot, the smoked fruit of Prunus mume) was used to relieve cough, treat ulceration and improve digestive function in Traditional Chinese Medicine (TCM) for thousands of years (16). In recent years, Fructus mume extract was reported to have strong inhibition effect on human influenza A virus and suppressive effects on Helicobacter pylori-induced glandular stomach lesions in Mongolian gerbils (17, 18). However, its antimicrobial activity for oral pathogens has not been fully investigated yet. Therefore, the aim of this study was to evaluate the antimicrobial efficacy of Fructus mume extract on a monospecies-biofilm model established on orthodontic brackets in vitro.

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## Scientist, You Don't Own Your Data

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Posted by tonzijlstra on 13 Oct 2011

In the Dutch national newspaper [nrc.next](#) an article appeared with the title "Can you own your data". The Dutch national science foundation [NWO](#) has made it compulsory for researchers to publish their research data if they receive NWO funding. NWO funds scientific research with a yearly budget of over 5 billion euros.

Ron Dekker, Director for Institutional Information at NWO, says: "Scientists mistakenly believe they own the research data they produce. We want to spread out the benefit of costly research across multiple researchers. We want to explore the possibility of interesting follow-up research re-using the same data." This new open access to not just articles but also research data has been added to the funding requirements.

Director Peter Doorn of DANS (Data Archiving and Networked Services) welcomes NWO's step. DANS collects research data and makes it digitally available. "This step by NWO is really helpful." "In exact sciences sharing data is much more common, in other fields like social sciences still less so."

NWO would also like to see that researchers no longer sign away copyrights to the magazines they publish in, and wants to encourage licensing content to magazines. Leading scientific magazines routinely demand copyrights being signed over to them. "It means we will have to fight commercial publishers that want to maintain their current business model on this.", says Dekker.

Compulsory open access to not just articles but also research data has been added to the funding requirements.





28 September 2011, 1.25pm AEST

## Princeton goes open access to stop staff handing all copyright to journals – unless waiver granted

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Researchers and peer reviewers are not paid for their work but [academic publishers have said such a business model is required to maintain quality](#).

Academics will also be encouraged to place their work in open access data stores such as [Arxiv](#) or [campus-run data repositories](#).



Princeton University hopes its new Open Access policy will pressure academic publishers to stop requiring the copyright to the papers they publish. [Flickr/Yakinodi](#)



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