

Research @ universities: Cited more, Safe forever*





Presented to the Southern African Regional Universities Association, 26 October 2007

Presented by Ina Smith

*Acknowledgement: University of Michigan

UP leads international Eucalyptus genome project addressing Research @ UP

world energy crisis

by Prof Zander Myburg

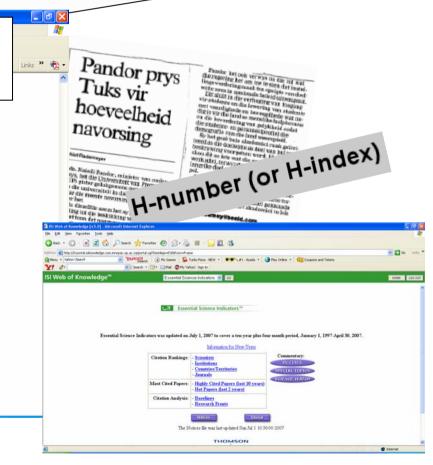
The University of Pretoria, in collaboration with several other international research organizations and Stotes Department of Energy (DOE) Joint Genome Institute(JGI), is working on enhancing Posted on 11 July 2007

Shanghai Jiao Tong University

Address

http://ed.sjtu.edu.cn/ranking2006.htm

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401-500	Univ KwaZulu-Natal	Africas	3-5	South Africa	3-4	0	0	7.7	9.8	22.9	11.9
401-500	Univ Louisville	Americas	165-196	USA	141-167	0	0	0	6.4	32.2	16.2
401-500	Univ Maine - Orono	Americas	165-196	USA	141-167	0	0	7.7	10.8	18.9	13.6
401-500	Univ Maryland - Baltimore County	Americas	165-196	USA	141-167	0	0	10.9	8.5	20.5	15.1
401-500	Univ Memphis	Americas	165-196	USA	141-167	0	0	7.7	9.6	19.2	10.3
401-500	<u> Univ Mississippi - Oxford</u>	Americas	165-196	USA	141-167	0	0	7.7	4.9	24.1	11.7
401-500	<u>Univ Nebraska Med Center</u>	Americas	165-196	USA	141-167	0	0	15.4	6	21.9	12.5
401-500	Univ New England	Asia/Pac	64-92	Australia	12-16	0	0	7.7	9.6	16.9	18.1
401-500	Univ Nice	Europe	172-207	France	18-21	0	0	7.7	9.8	20.8	11.1
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401-500	<u>Univ Pretoria</u>	Africas	3-5	South Africa	3-4	0	0	0	9.1	26.7	12.9
401-500	Univ Quebec	Americas	165-196	Canada	20-22	0	0	0	6.7	32	14.9
401-500	Univ Roma - Tor Vergata	Europe	172-207	Italy	15-23	0	0	0	6.5	33.2	15.7
401-500	<u>Univ Rostock</u>	Europe	172-207	Germany	37-40	0	0	7.7	6	27.2	13.2
401-500	Univ Saarlandes	Europe	172-207	Germany	37-40	0	0	0	10.7	29.7	14.4
401-500	<u>Univ Sevilla</u>	Europe	172-207	Spain	6-9	0	0	0	8.6	30.8	14.6
401-500	Univ Sherbrooke	Americas	165-196	Canada	20-22	0	0	7.7	8.3	23.8	12



Organizational Strategy & Objectives

"The sound management of information through our library system is cardinal to our vision of being an internationally recognised research university. New technologies have made it possible to access academic information here and abroad more efficiently than in the past. Furthermore, increasingly, information sources are being received in digital format by the University's libraries. We believe it to be essential that the opportunities afforded us by these developments should be fully exploited. We intend ensuring that this is the case."

(University of Pretoria 2007)

Library's e-Information Strategy

- Integrated seamless e-Service
- Objectives
 - Support education innovation & research excellence
 - Optimal e-information (portal) services
 - Participate & contribute to national & international e-information phenomena
- Key sub strategies
 - Create e-information environment
 - E-Information plan
 - Learning/ e-learning & research/ e-research support strategies
 - Library structure, business processes, skills, facilities

What is an IR?

- Set of services
- Management
- Dissemination
- Organizational commitment
- Stewardship
- Long-term preservation
- Organization & access/ distribution

Open access @ UP

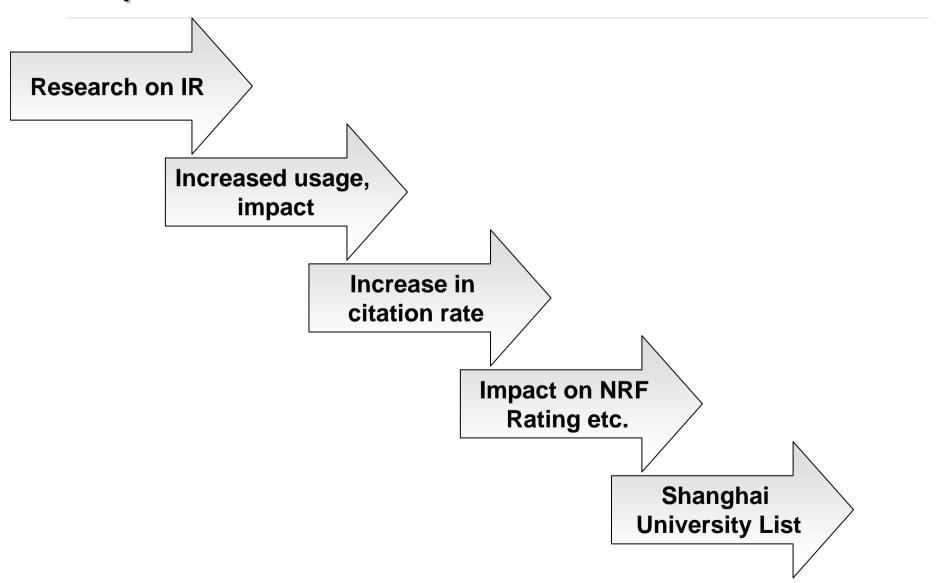
"Open access (OA) is free, immediate, permanent, full-text, online access, for any user, web-wide, to digital scientific and scholarly material[1], including research articles published in peer-reviewed journals."

Source: http://en.wikipedia.org/wiki/Open_access

Benefits of an open access IR

- Preservation function
- Central archive of research
- Increases visibility, usage, impact of research
 "open access papers are read more widely, and,
 therefore, cited more frequently. The consequence of
 this is that they have greater impact" (Jones, Andrew
 and MacColl 2006)
- Open access to all also those who cannot afford subscribing

Impact an IR can have on research



Highlights

2005

- Research & Needs assessment
- Champions identified
- Evaluation of software
- Proposal
- Hardware & Staffing
- Digitization & Metadata Standards
- Jan. 2006: Implementation
- Oct. 2006: DigiBook 10000 RGB Scanner
- Feb. 2007: Role description Info. Specialists
- March 2007: Role description Cataloguers

Project Phases

Analysis

Design

Development

Implementation

Evaluation

About DSpace



Top Reasons to Use DSpace

Largest community of users and developers worldwide

Free open source software

Completely customizable to fit your needs

Can manage and preserve all types of digital content -- text, images, moving images, mpegs, datasets

Used by educational, government, private and commercial institutions

Can be installed easily "out of the box"

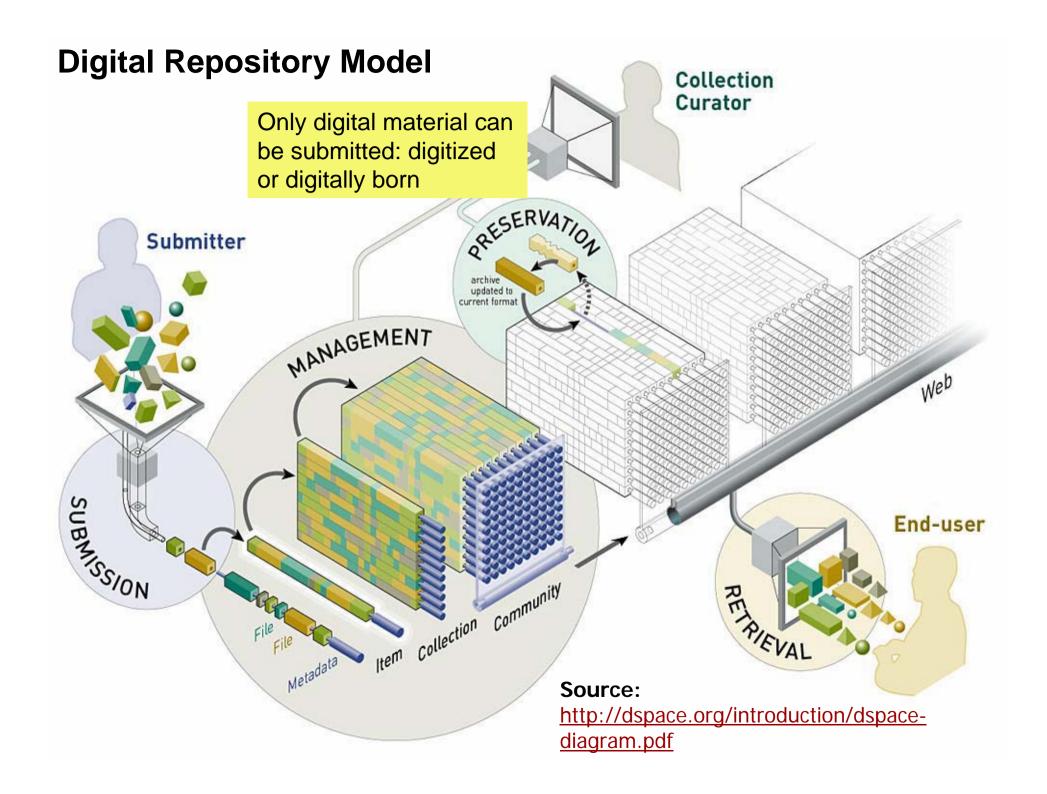
http://www.dspace.org/

Getting started

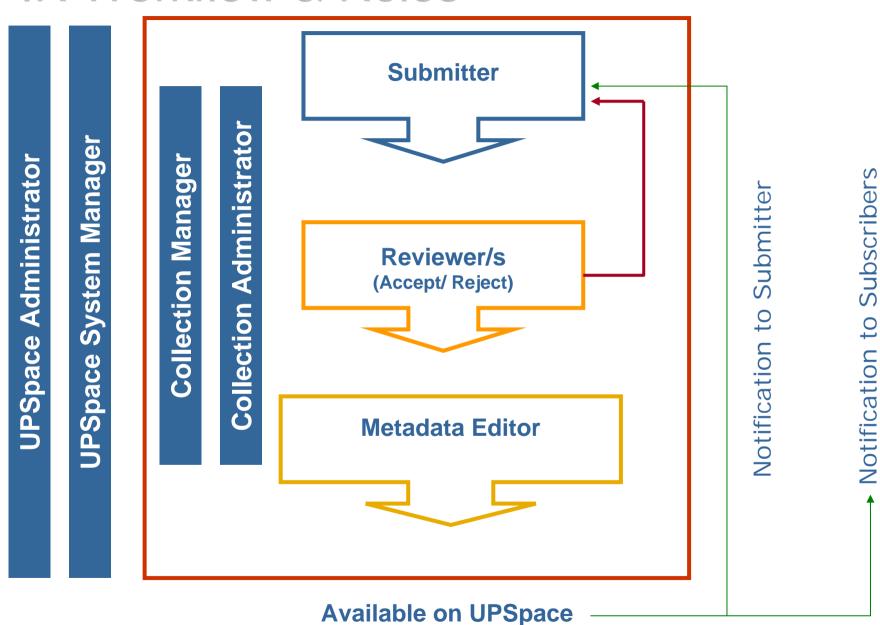
- Download from: http://sourceforge.net/projects/dspace/
- Operating systems: 32-bit MS Windows (NT/2000/XP), All POSIX (Linux/BSD/UNIX-like OSes), OS X
- Pre-requisite software:
 - Java SDK 1.4 or later (standard SDK is fine, you don't need J2EE)
 - PostgreSQL 8.x for Windows
 - Apache Ant 1.6.x
 - Jakarta Tomcat 5.x+

Features offered by DSpace

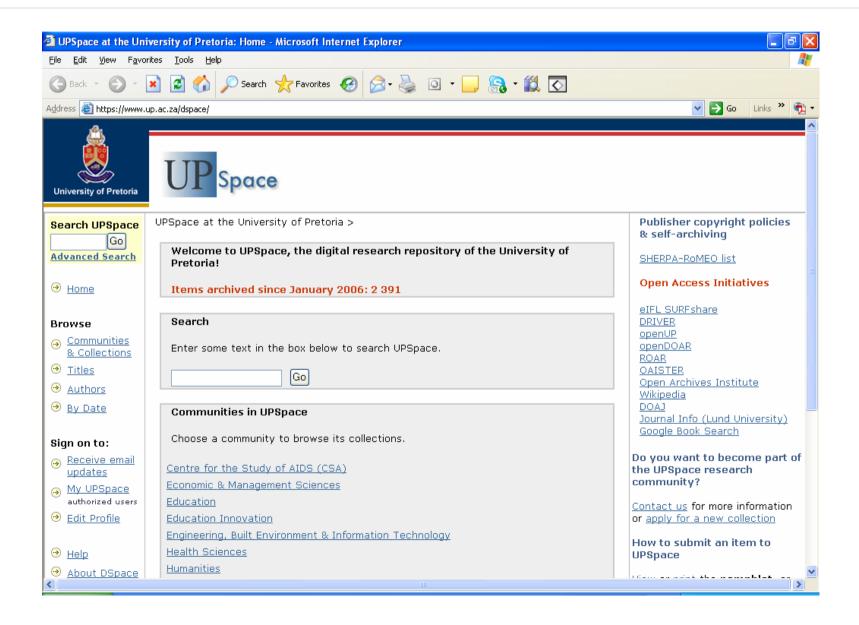
- Web/ Library 2.0 functionalities
- Guarantees archiving/ preservation of material in digital format
- Persistent URL's
- Subscribe to collections
- E-workflow for quality control
- Distributed/ Decentralised input
- Limit access on various levels
- Searchable (incl. full text) not static web page

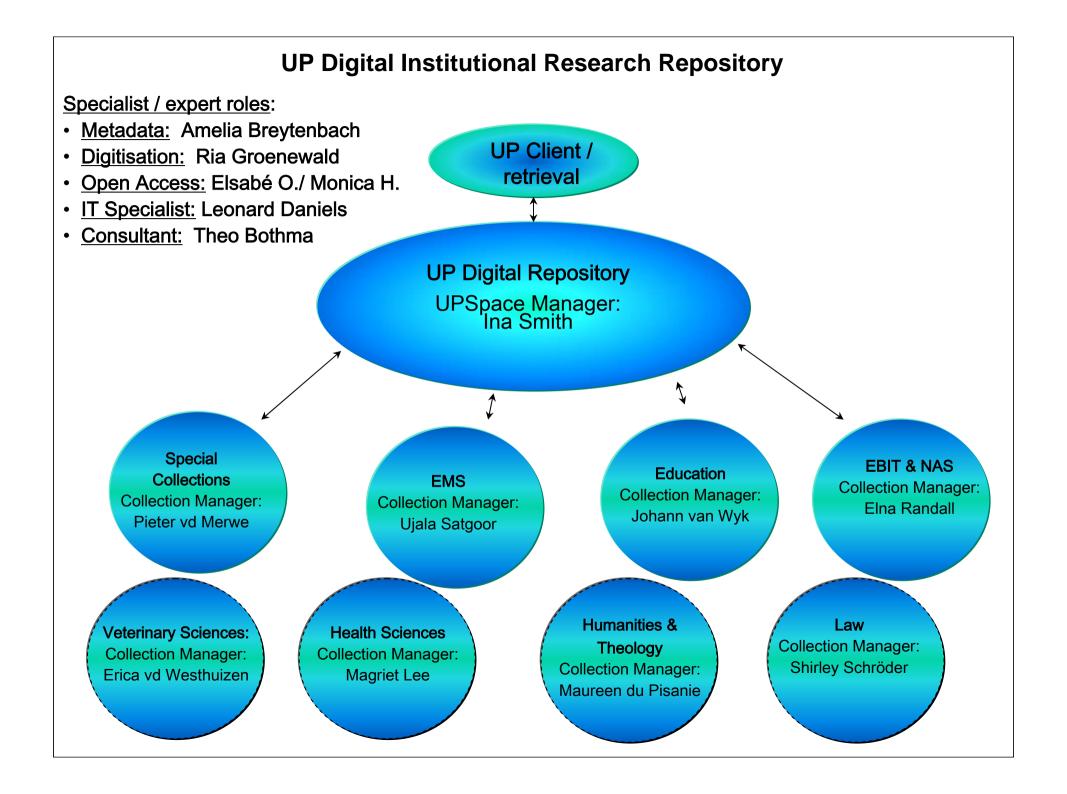


IR Workflow & Roles



https://www.up.ac.za/dspace/





Champions

Gerard Moerdijk Collection **Arnold Theiler Collection** Research Articles Jonathan Jansen Collection





In vitro effect of medicinal plants used to treat erectile dysfunction on smooth

N.C. Rakuambo, J.J.M. Meyer, A. Hussein, C. Huyser, S.P. Mdlalose and T.G.

Chloroform and ethanol extracts of root bank of Securidaca longepedunculata, Wrightia natalensis and Rhoicissus tridentata were investigated for their in vitro activity on the nationaries and noticepture in insimilar were investigated for their in vitro activity on the contraction of copies coveranced among many and with New Zealina robots. Some of the extent of these plants related the copies coveranced smooth muscle at load concentrations. The highest activity was obtained from Securificate along-epidenic client concentrations. The highest activity was obtained from Securificate along-epidenic client chloroform extracts at a concentration of 13.0 mg/ml, which induced 65.65 relatation. Vagar was used as a positive count in this study, Extracts of Securificate longepadimiculata added to human spermatozoa affected certain sperm parameters negatively at 6.5 mg/ml and higher whilst there was no effect at 1.0 mg/ml.

Article Outline

- 1. Introduction
- Materials and methods
 1. Plant material
 2.2. Plant extraction for smooth muscle relaxation experiment
- 2.2. Plant extraction for smooth miscle relaxation exp 2.3. Plant extraction for sperm parameter experiment 2.4. Preparation of corpus cavernosal smooth muscle 2.5. Smooth muscle relaxation bioassay
- 2.6. Sperm processing, motility, vitality and membrane integrity 2.7. Statistical analysis

- S. Results
 Results

Acknowledgements

COP: Architecture



COP: Veterinary Sciences

Elephants in UPSpace

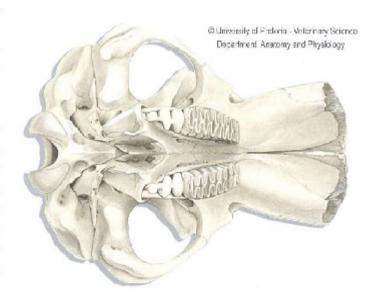
by Erica van der Westhuizen

The Onderstepoort library is excited about its latest digital project. Fifty-one of Christine Seegers's elephant sketches have been placed on the UPSpace at https://www.up.ac.za/dspace/handle/2263/1971. In this way this unique collection can be safeguarded, while showing it to the rest of the world. Each plate has the UP logo, marking it as UP property, the copyright-holder being the Department of Anatomy and Physiology of the Faculty of Veterinary Science.

Special mention must be made of the important role of two staff members in creating this digital collection: Ria Groenewald, Digitisation Coordinator of UP, whose expertise in creating the digital images ensured that the artist's work is shown to its best advantage, and Amelia Breytenbach of the Onderstepoort library, who heads the metadata applications for UP, enabling optimal retrieval of information on the website.

We would like to thank Prof Herman Groenewald, Head of the Department of Anatomy and Physiology, for his input in describing each illustration.





An example of Christine Seegers's illustration of the African elephant (the adult skull), which can be seen at https://www.up.ac.za/dspace/handle/2263/2213.

Information Model

Top-Level Community

Faculty e.g. Economic and Management Sciences

Sub-Community

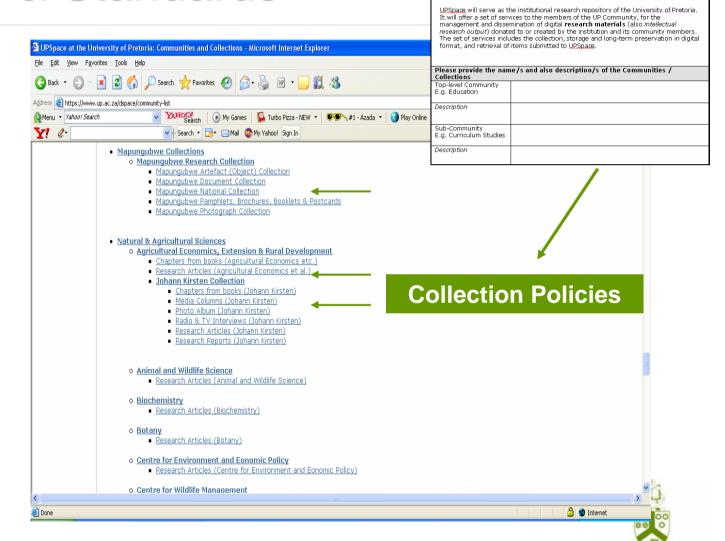
Department e.g. Auditing

Collections

E.g. Open Lectures
Conference Proceedings
Student Projects
Research Articles
Photo Album
Media Columns

Policies & Standards

UPSpace Policy
Digitization Standards
Metadata Standards



University of Pretoria
Academic Information Service
UPSpace Collection Policy

For any other policy issues, please refer to the main UPSpace Policy available at www.dspace.up.ac.za

University of Pretoria

Collection Policies

Top-level Community, Sub-Community, Collection

Roles in workflow

Description of collection

Collection license

Restrictions

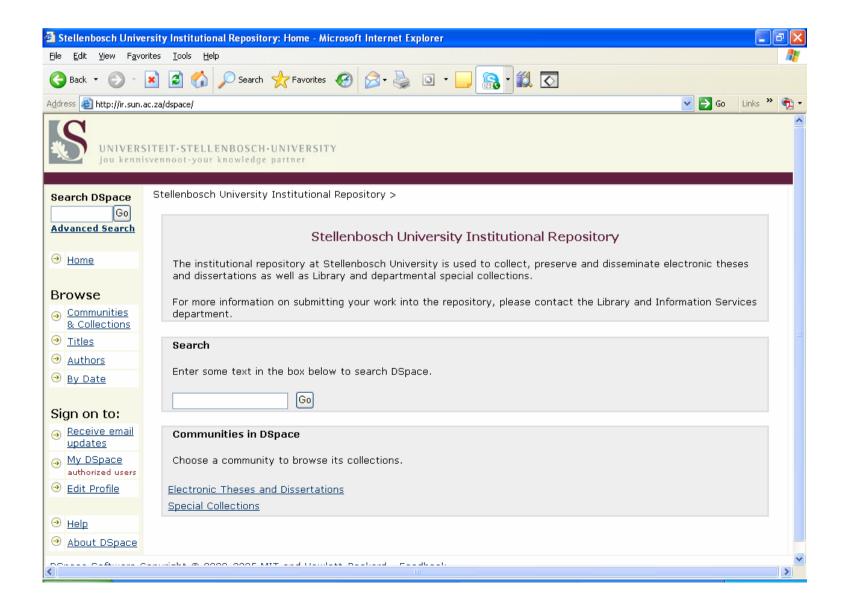
File formats

File naming conventions

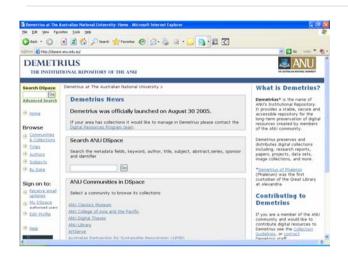
Referencing technique

Language policy etc.

10 Repositories National



900 + Repositories International



Univ. of Australia



University of St Andrews



Cornell University

And many more

Our focus ...

- Scholarly publications (journal articles)
- Historical & archival material
- Popular research material
- Unpublished research
- Inaugural addresses
- Conference proceedings
- PDF documents, photos, images, video clips, sound clips

Dynamic response of biofilm to pipe surface and fluid velocity

T.E. Cloete, D. Westaard and S.J. van Vuuren

Introduction

Numerous research efforts have focused on the development of biofilms (Costerton et al., 1995; Cloete, et al., 1998). MIC is caused by the presence of bacteria in water systems, especially by bacterial biofilms and to prevent this, such bacterial biofilms must be removed. Five mitigation approaches are currently followed: (i) bacteria are chemically killed by application of bactericidal compounds, termed biocides, at lethal doses, (ii) biofilms are dispersed by dispersants, (iii) biofilms are removed physically by a variety of processes, (iv) the biofilm structure is weakened by enzymes or chelants, and (v) planktonic bacterial numbers are controlled by ultraviolet light (Cloete et al., 1998).

However, in order to be more effective in the control of biofouling, it is also very important to identify the growth conditions that are less favorable for microbial activity and biofilm formation. Biofilms are subjected to fluid shear effects, including detachment caused by flowing water (Lawrence et al., 1995; Vieira et al., 1993). Detachment was classified into four categories by Bryers, (1988) i.e. erosion; sloughing; abrasion and grazing. Trulear and Characklis (1982) found that detachment increases with fluid velocity and mass of biofilm. When the shear stress decreased, it had no effect on detachment. Peyton (1996) studied erosion and concluded that detachment is not affected by the shear stress. Understanding the dynamic response of biofilms to various flow velocities could lead to a better understanding of how flow velocity influences the growth and adhesion of the biofilm and whether it is possible to decrease biofilm formation and/or increase detachment, by manipulating flow velocities.

The main objective of this study was therefore to monitor biofilm development and to study the effect of fluid velocity on biofilm formation on different piping materials used in potable water distribution systems.

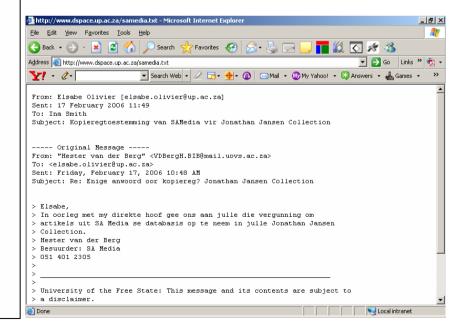
Materials and methods

Evaluation of fluid velocity on biofilm formation

To test the effect of velocity on the growth of biofilm, a Roto-Scope was designed and built to imitate the flow conditions in potable water distribution systems. Two sets of pipe sections were made in order to test more than one velocity during the test period.



http://www.sherpa.ac.uk/romeo.php



SA Media - The University of the Free State

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By Invitation

A recent research study concludes that the impact of a tariff on the price of white bread would be minimal

PROTECTION UP TO A POINT

Johann Kirsten

The row between wheat farmers and large L buyers of grain over an application for a tariff on imported wheat has reopened the debate on whether we need to protect our farmers against foreign competition. Already a heated issue, the row erupted again after GrainSA's application to the International Trade Administration Commission recently.

With the advent of democracy in 1994, SA adopted a liberalised trade policy regime in line with the World Trade Organisation's (WTO) philosophy of freer trade. These free-trade principles were implemented quite rapidly after the 1994 Marrakech agreement.

By 2004 the majority of SA's tariff lines were zero or below 10% ad valorem, reflecting our liberalised trade regime.

Many argue that SA was too quick in freeing trade and failed to take into account the shedding of jobs and other negatives because not all major trading nations followed similar reform schedules. As a result, today SA has one of the most open economies in the world.

In the WTO the battle for free trade in agricultural commodity markets has not been won, and high levels of agricultural subsidies and protection remain in the European Union and the US. This creates an uneven playing field, which is the main reason why SA farmers say they should be protected.

Various studies argue that the removal of trade-distorting agricultural policies of developed countries would entail higher world agricultural commodity prices. For example, the world wheat price would increase by 14% if global export subsidies and domestic support were removed and import tariffs reduced.

ment, through the land reform programme, is trying to establish a group of farmers which does not have much experience in agriculture or world agricultural markets. It could, therefore, well be asked whether it is fair to expose these emerging (black) farmers to this unfair playing field. Why should they not enjoy some form of protection against these world forces as they try to get their farming enterprises up and running? White commercial farmers had this protection for years and though it protected inefficiencies, it at least provided a cushion to start competing effectively.

In terms of WTO rules SA's tariff-bound rates are much higher than our current tariff levels, leaving substantial room for tariff increases without compromising WTO commitments.

It is important to note the welfare effects of tariff protection: producers enjoy high price guarantees but consumers are worse off since they have to pay more for the product. With high poverty levels in SA, this would be a major concern. It has to be weighed against potential job losses and farm bankruptcies.

But if we depart from the standpoint that tariffs do have an impact on the domestic price of imported commodities, the critical question to answer is: what is the real impact of this increase on consumer prices? In a recent study conducted by the University of Pretoria's Bureau for Food & Agricultural Policy Research, it was found that an increase in the wheat import tariff from the current level of 2% of the world price of wheat to 30% would increase the domestic wheat price by R137/t. Linking this increase to a price transmission model showed an increase in the cost of flour of 8c/loaf, which would result

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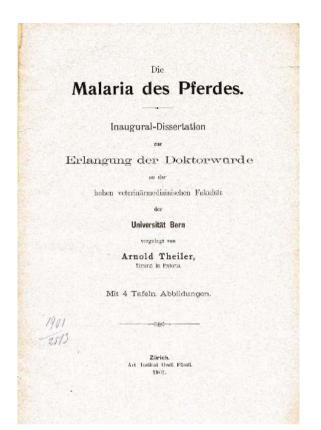


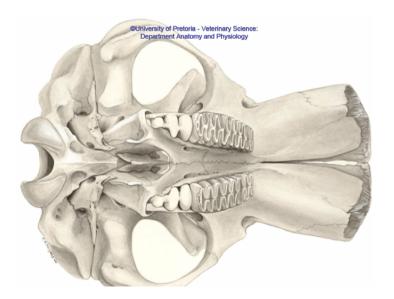
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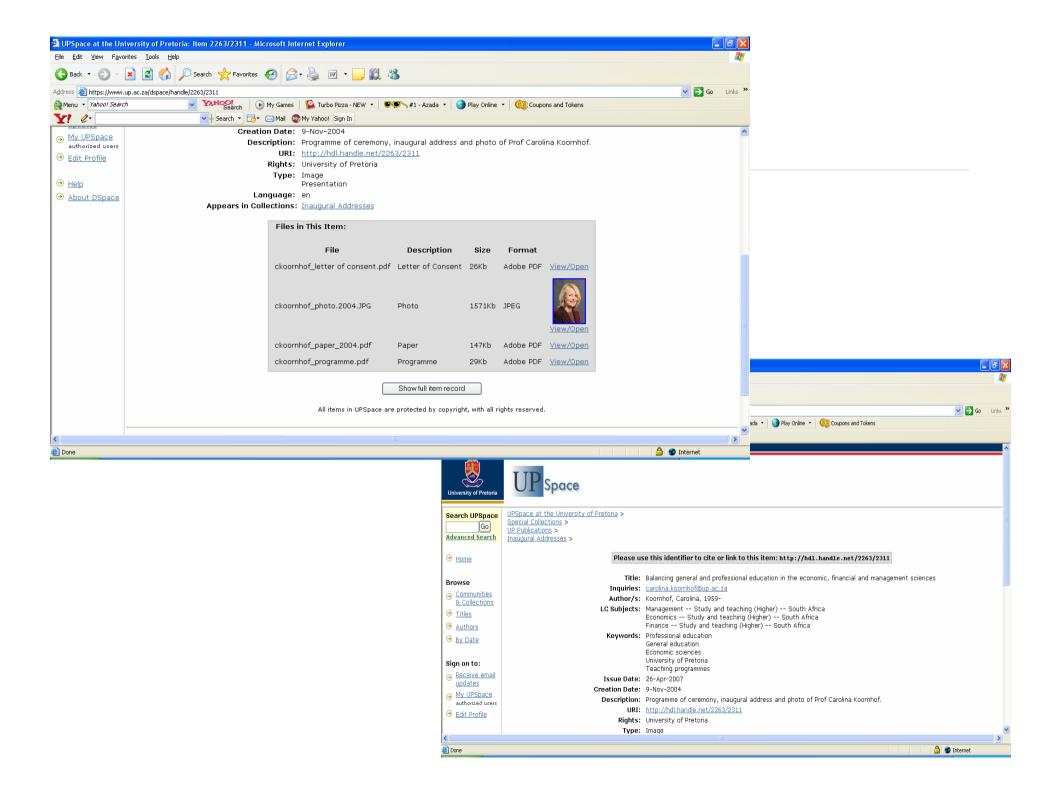
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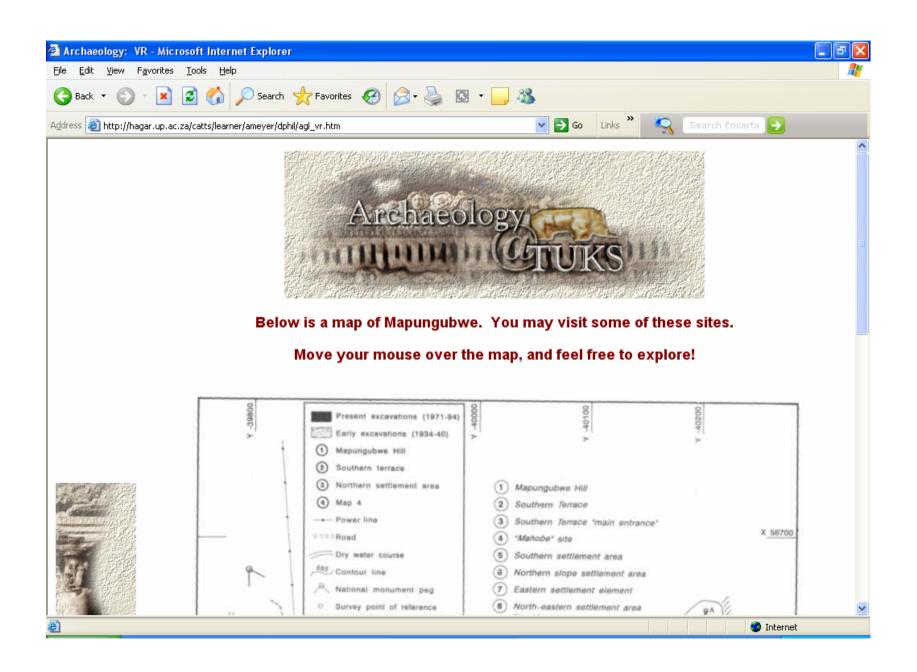












S. Afr. J. Agric. Ext., 1993 : 47-54 S. Afr. Tydskr. Landbouvoori., 1993 : 47-54

THE ROLE OF EXTENSION IN TRADITIONAL AGRICULTURE : EVIDENCE FROM THE FARMER SUPPORT PROGRAMME!

J F Kirsten², J van Zyi³ and HJ Sartorius von Bach⁴

ABSTRACT

This paper evaluates the extension and training element of the FSP as implemented in the farmer support programmes of Venda and Lebowa. The importance and contribution of extension and training in the success of the programme can be judged from this paper. The general conclusion of the paper is that extension and training play an important role in FSPs. They are closely associated with increased production. However, to what extent it contributed towards increased production remains a point of contention. Some analysts and observers argue that only the rural elite has access to FSP related services. Results from the analyses in the paper, however, show that comparable households achieve higher yields when they get appropriate extension. Training and extension thus at least partly contribute to higher maize yields in FSP areas.

UITTREKSEL

Hierdie artikel beskou die opleidings en voorligtingskomponent van die kleinboer ondersteuningsprogram ("Farmer Support Programme" - "FSP") soos dit in sekere gebiede van Vende en Lebowa geimplimenteer is. Die belangrikheid en bydrae van voorligting en opleiding in die sukses van hierdie program biyk duideilik uit hierdie artikel. Die gevolgtrekking word gemaak dat voorligting en opleiding een van die belangrikste elemente van hierdie program is en nou geassosieer word met verhoging in produksie. Tot watter mate opleiding en voorligting tot die verhoging in produksie bydra, biy egter 'n punt van dispuut. Ontledings in die artikel toon egter aan dat vergelykbare huishoudings meer produseer indien hulle gepaste voorligting ontvang. Dit wil dus voorkom asof opleiding en voorligting ten minste gedeeltelik bydra tot hoër opbrengste in die gebiede waar die kleinboer ondersteuningsprogramme geimplimenteer is.

1. INTRODUCTION

In response to the ineffective and costly large scale project approach in homeland agriculture, the Development Bank of Southern Africa introduced the concept of a small holder farmer support approach to aid the development of black agriculture in South Africa. Considering the various constraints faced by small farmers in the homelands (cf. Van Rooyen et al. 1987), the farmer support programme (FSP) was

by improving farmers' access to support services over a broad base in a sequential and evolutionary manner* (Van Rooyen, 1993).

In order to reach this objective the FSP comprises six basic elements, i.e. the supply of inputs and capital to fermers, mechanisation services, marketing services, extension services, training and

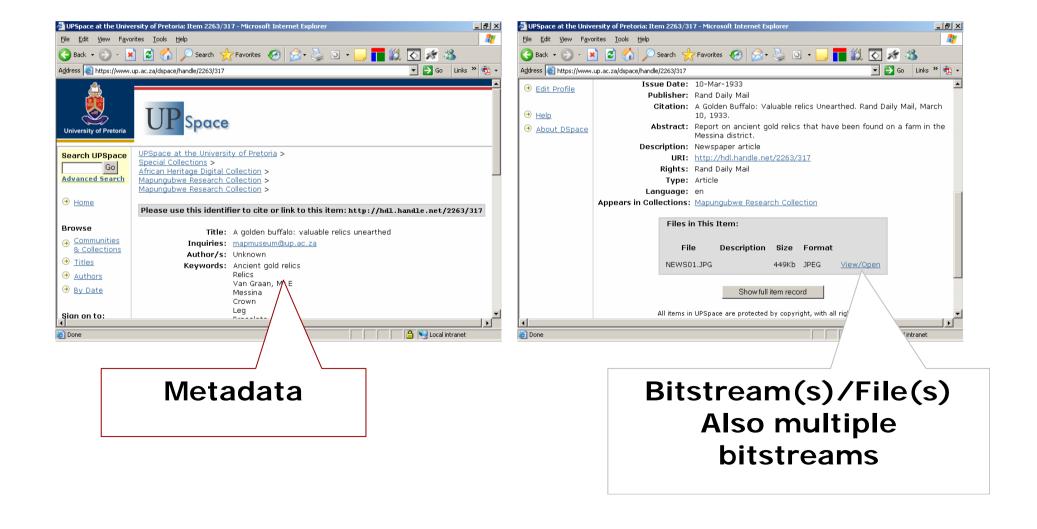
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Data sets

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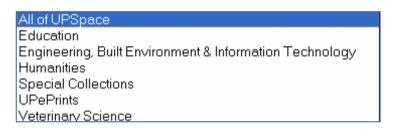
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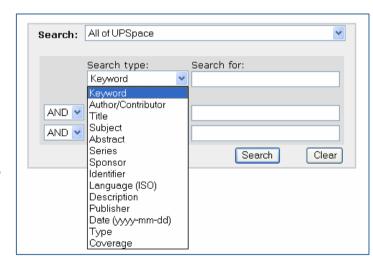


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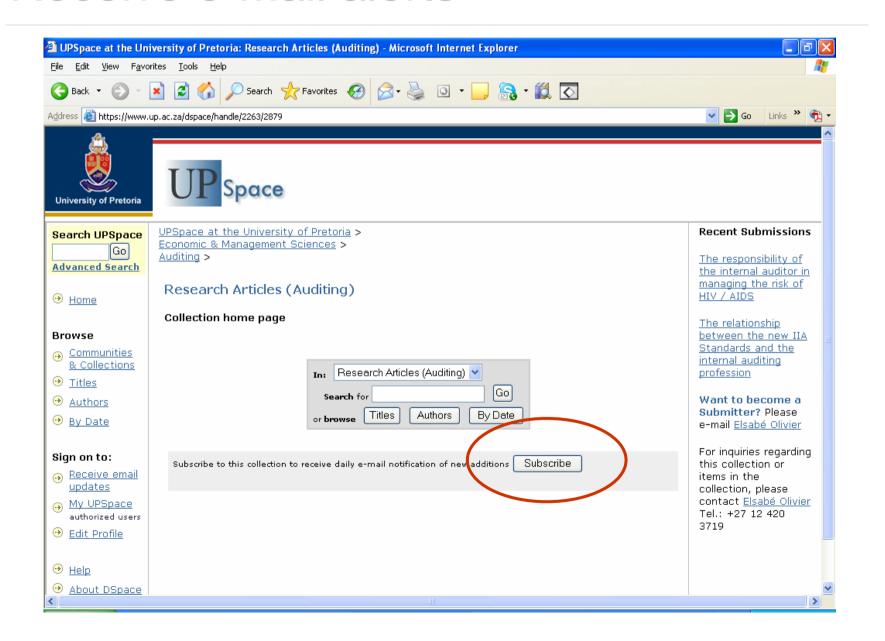
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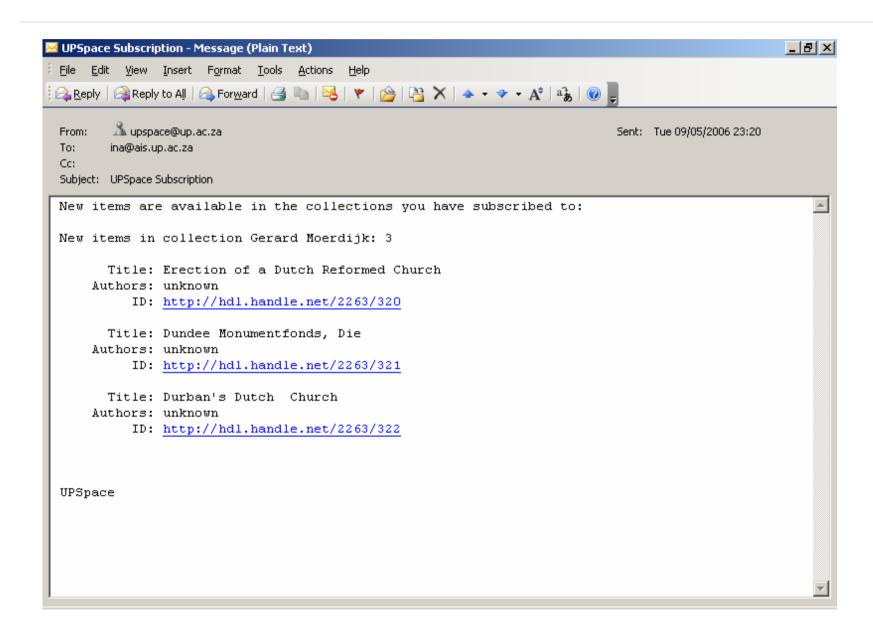




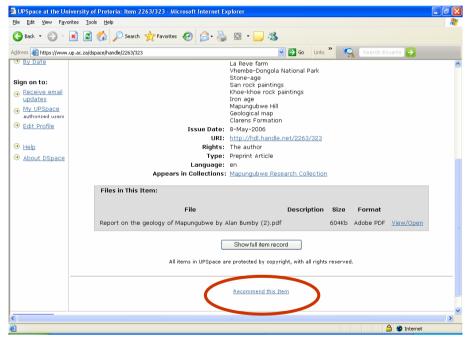
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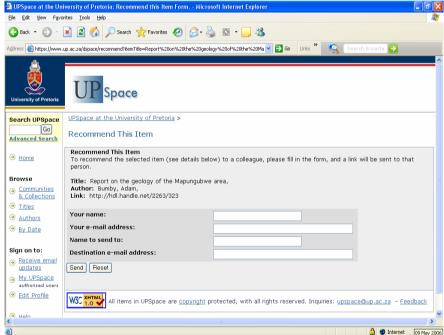


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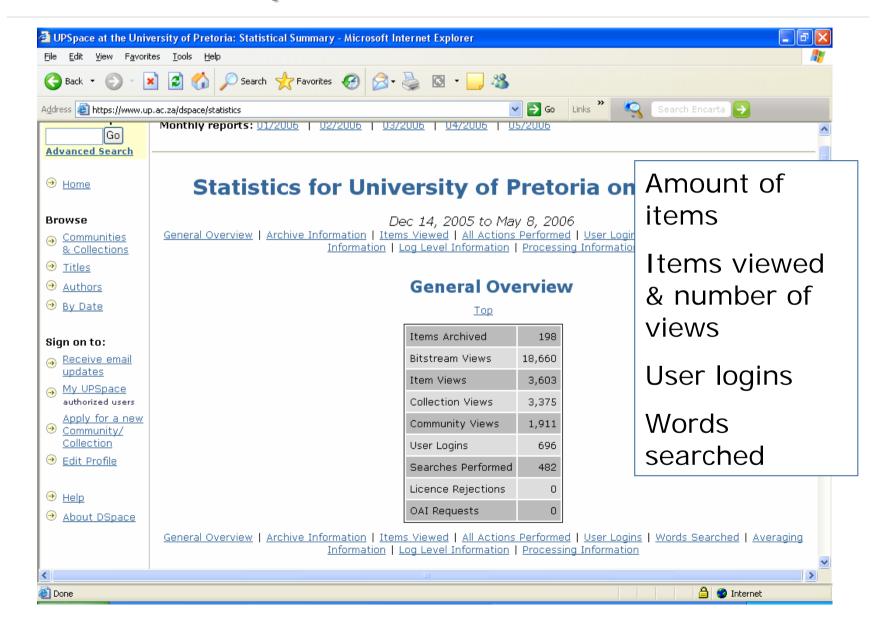
Restrict access

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- PDF password (File)



LDAP Authentication

Statistical reports



Training & Support

- Group/ Individual training
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- Animated Online Tutorial
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- UPSpace Listserve
- UPSpace Web
- Collection Policies
- Frequent communication

Rights, Copyright, Licensing

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- SHERPA/ RoMEO
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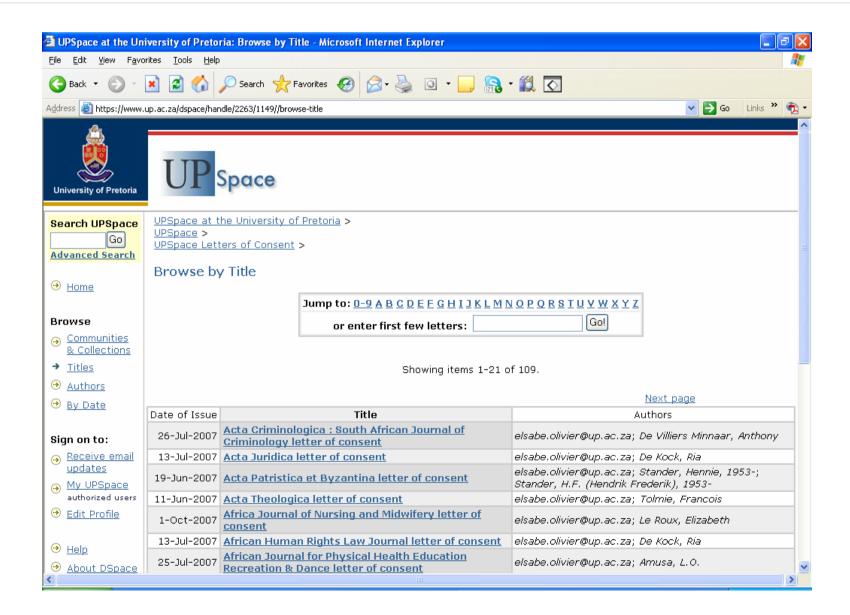
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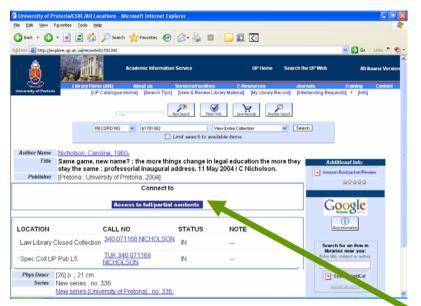
Marketing the IR

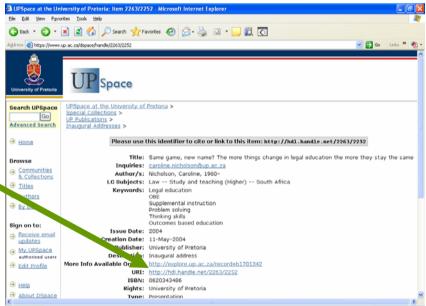
- Start at home: library staff
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- Visits to departments
- Pamphlets
- Campus newsletters & publications
- E-mails
- Media
- Marketing events

Registering on the WWW

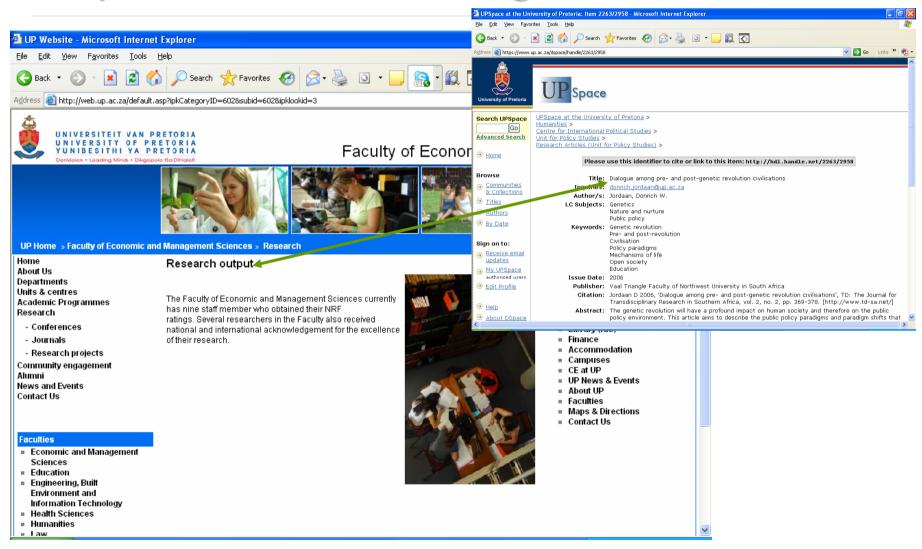
- Library Catalogue
- Web pages
- Search Engines (Google & Google Scholar)
- Metadata Harvesters
- IR Registries

Library Catalogue

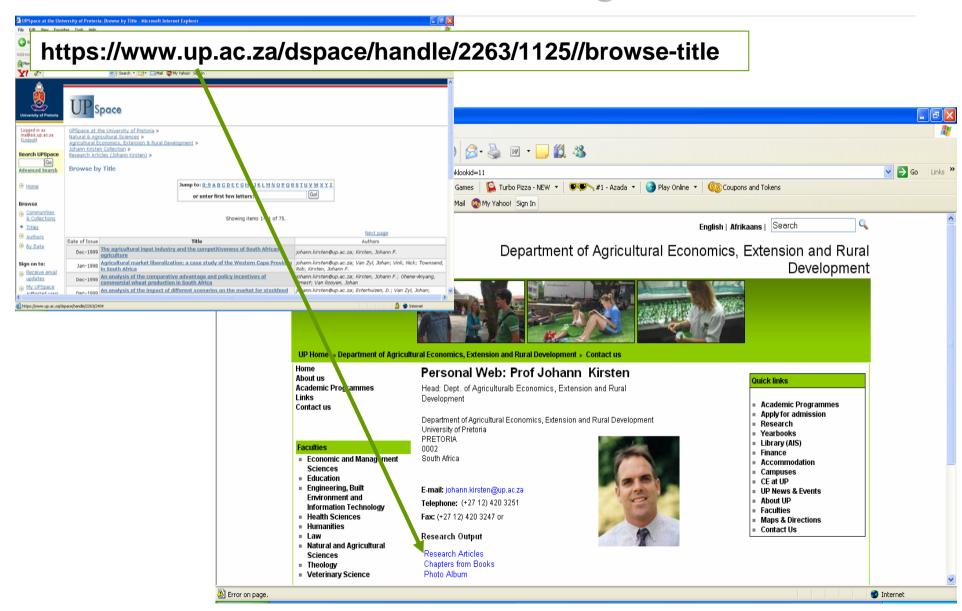




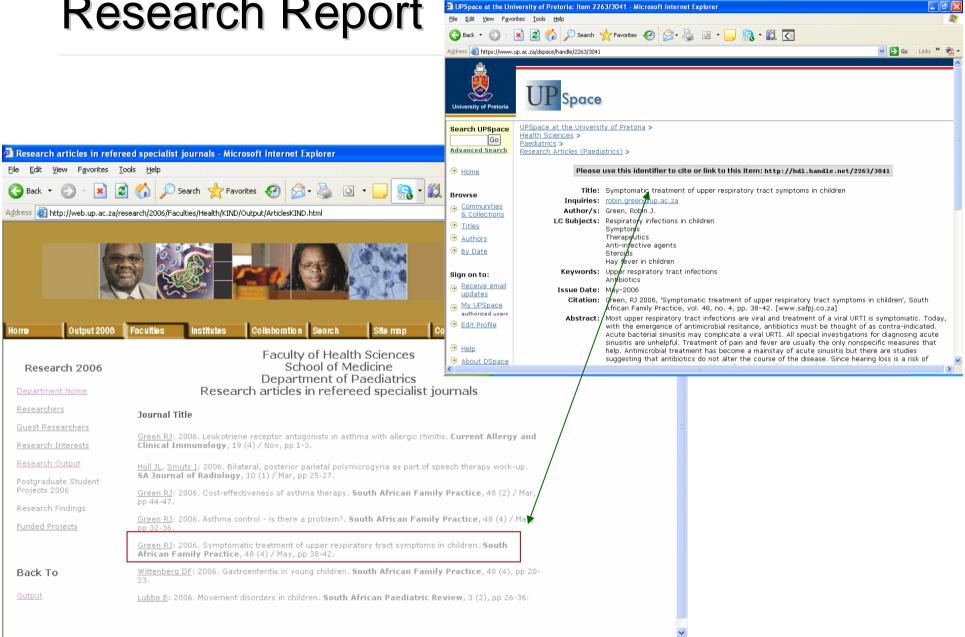
Departmental Web Pages



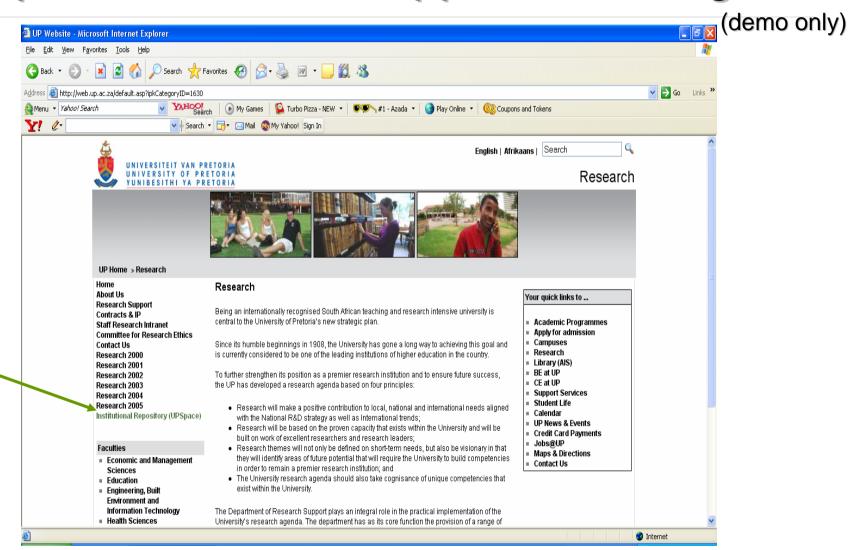
Automated Search Linking



Research Report

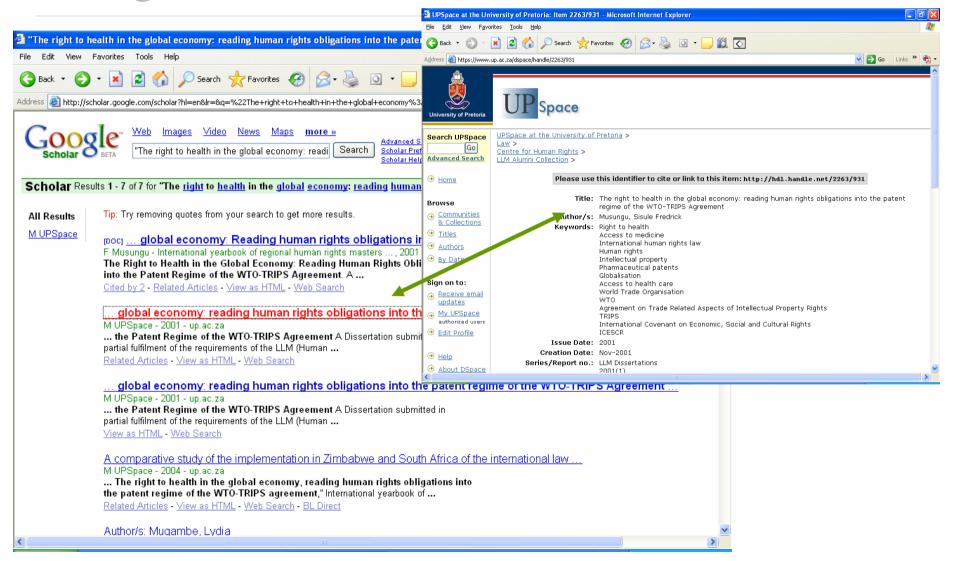


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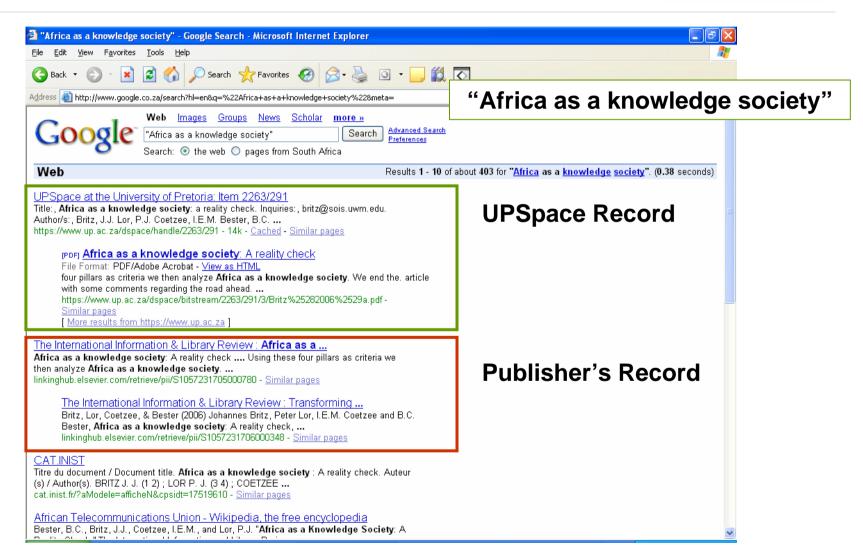
Google Scholar

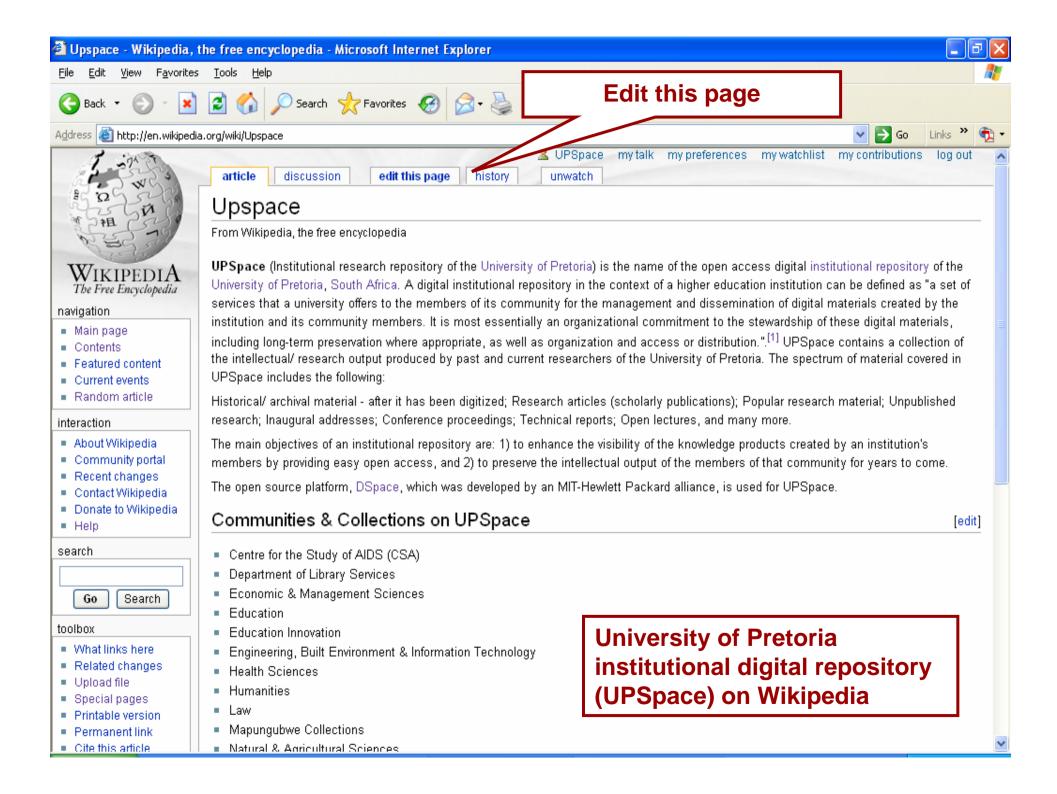


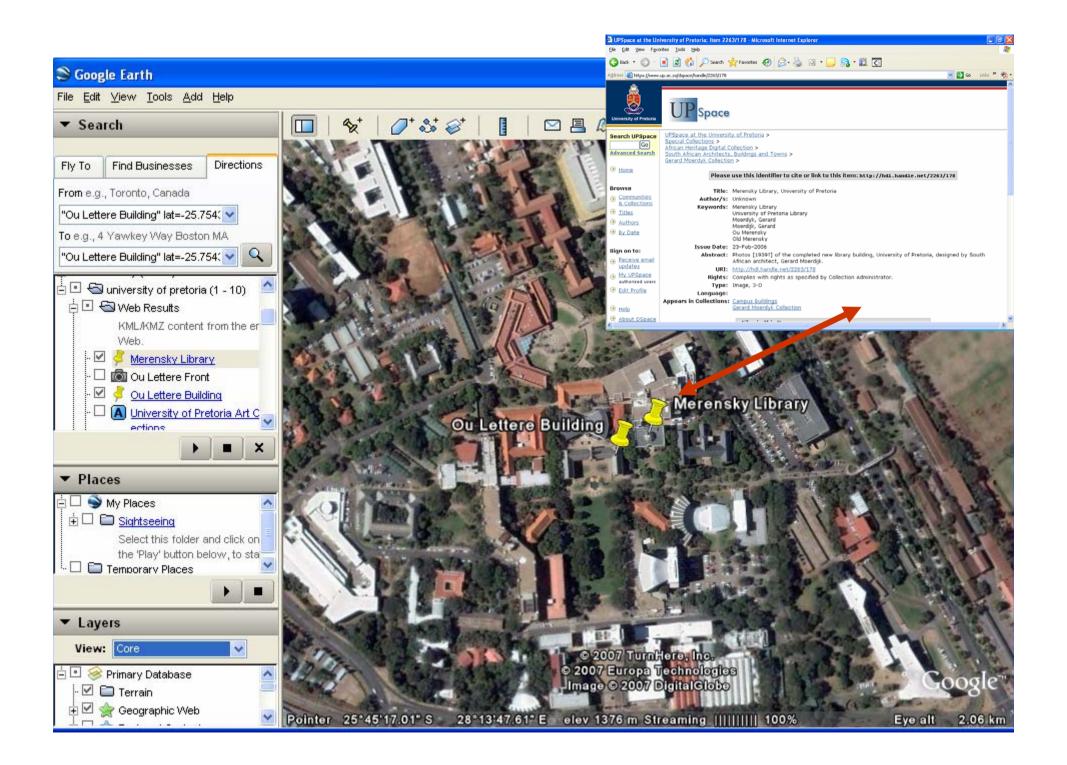


Google





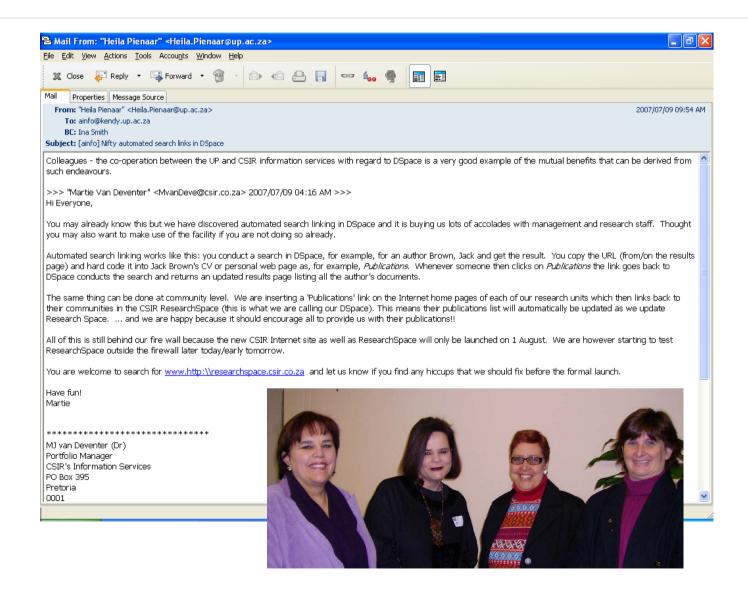




International Harvesters

- DSpace http://www.dspace.org/
- openDOAR http://www.opendoar.org/
- ROAR http://roar.eprints.org/
- Open Archives Institute http://www.openarchives.org
- OAISTER http://www.oaister.org/
- DRIVER http://www.driver-repository.eu/
- eIFL (SURFshare)
 http://eifl.sharelab.cq2.org/en/page/page.view/eifl.page
- Scopus & Scirus

Collaboration



Outcomes of our IR

- New roles & responsibilities were generated
- Communities of practice (social networks) e.g. Dept. of Architecture & Library (Hettie Groenewald)
- Knowledge transfer
- Organizational learning
- Change of mind-sets
- Empowerment
- Teamwork

To do list

- 1st African Digital Curation Conference
- Community of Practice other institutions
- Investigate archiving of research data sets
- Study re trusted digital repositories
- Dissertations to UPSpace
- Integrate IR with RIMS
- Faculties/ departments take responsibility for selfarchiving of research output - mandatory



Inquiries

upspace@up.ac.za

Tel.: +27 12 420 3082

Visit:

https://www.up.ac.za/dspace/

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