# Introduction and current state of Institutional Repositories

Ina Smith



# Importance of Research @ HEI's



#### Research @ CTU

"... in line with international good practice, the value of interdisciplinary, multi-faceted collaboration is recognized as being instrumental to increasing global competitiveness; giving expression to our leadership role in Africa; effectively addressing the increasing complexity of research questions; leveraging more and better funding; increasing the mobility of researchers and creating exchange opportunities for postdoctoral fellows and postgraduate students. Moreover, the impact of research that results from meaningfully focused agendas demonstrates high responsive engagement with society."

#### Research @ Univ. of the Western Cape

"The Department of Research Development fosters research at all levels in all faculties, with a view also to improving the university's teaching. Emphasis is laid on the transfer of research skills to people previously excluded on national or gender grounds, especially in mathematics and the sciences, while not neglecting other fields.

The department administers research funding and encourages publication in print, both at the academic level and of a kind which is accessible to the community."

http://www.uwc.ac.za/?module=cms&action=showfulltext&id =gen11Srv7Nme54 1135 1210050564&menustate=research

### Research @ Stellenbosch University

"The quality and range of our research outputs are amongst the best in the country."

http://sun025.sun.ac.za/portal/page/portal/Administrative Divisions/Navorsing/Research%20Home



### What do HEI's expect from researchers?

- Internationally recognised
- Publish publish publish! more money for institution
- Publish in accredited journals (DoE)



#### Role of a Higher Education Library

- Address research needs
- Aim: Seamless e-service to research information
- Objectives:
  - Support education innovation & research excellence
  - Deliver optimal e-information portal services to our clients
  - Take part & contribute to international & national einformation phenomena, e.g. open access, digital preservation, e-science, content management

#### Currents in Open Access Movement

"Open access (OA) is free, immediate, permanent, full-text, online access, for any user, web-wide, to digital scientific research and scholarly material."

#### Two currents in OA movement:

- OA self-archiving in institutional repositories ("green" road to OA)
- OA publishing ("gold" road to OA see e.g. DOAJ)

Source: <a href="http://en.wikipedia.org/wiki/Open access">http://en.wikipedia.org/wiki/Open access</a>



# Institutional Repositories



### What is an Institutional Repository?

"An institutional repository is a set of services that an institution offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organization and access or distribution."

Clifford A. Lynch,

<sup>&</sup>quot;Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age" ARL, no. 226 (February 2003): 1-7.



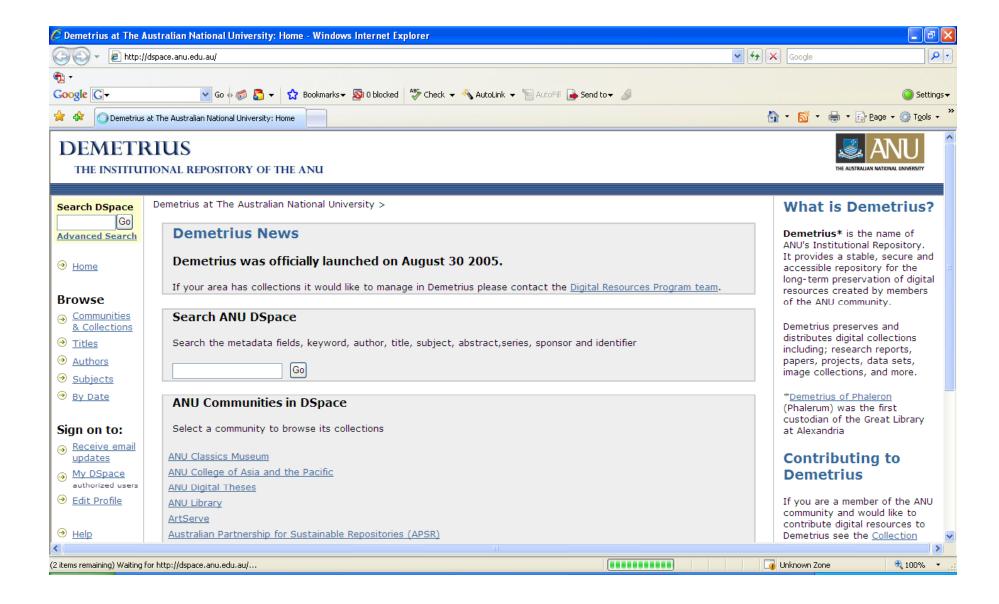
#### Preservation function of an IR

"Digital preservation is defined as the managed activities necessary: 1) For the long term maintenance of a byte stream (including metadata) sufficient to reproduce a suitable facsimile of the original document and 2) For the continued accessibility of the document contents through time and changing technology."

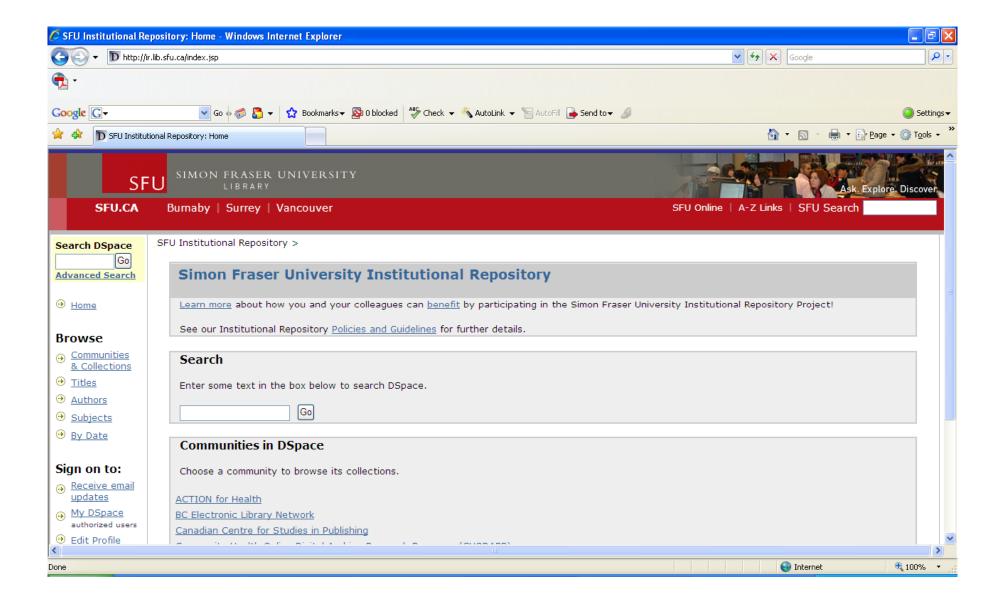
Source: http://www.dlib.org/dlib/june05/jantz/06jantz.html



### **Australian National University**



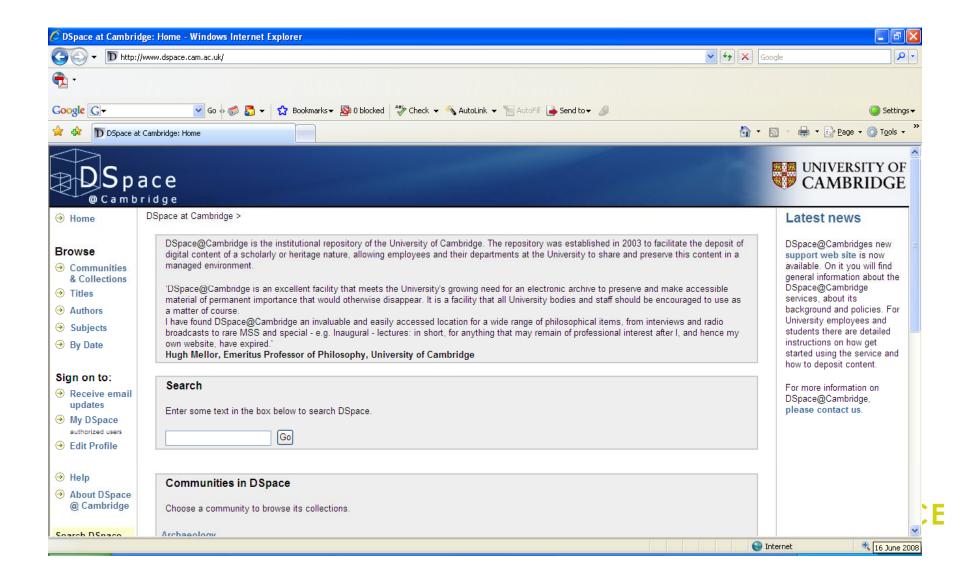
### Simon Fraser University



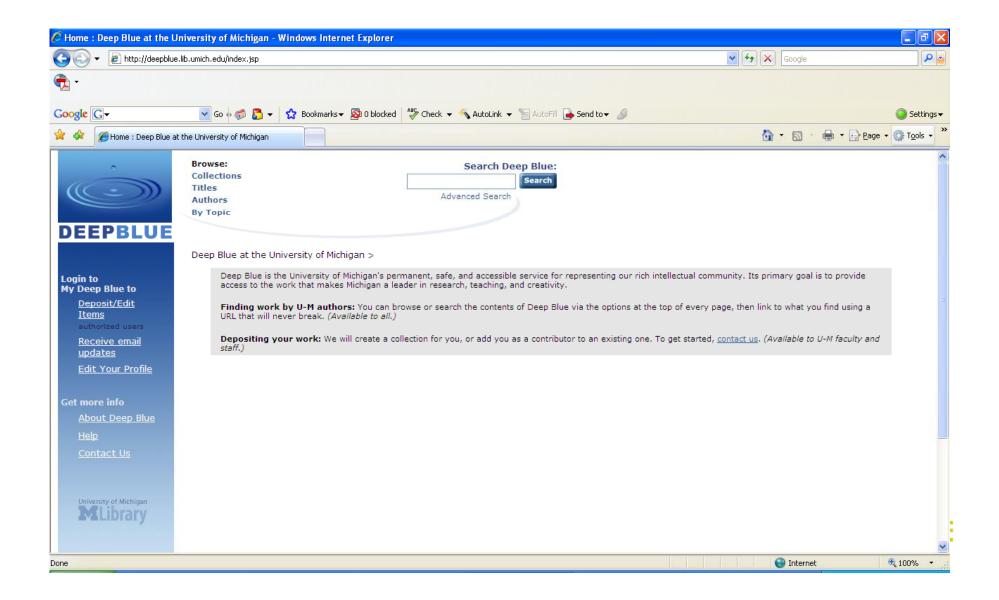
### University of Tokyo



### University of Cambridge

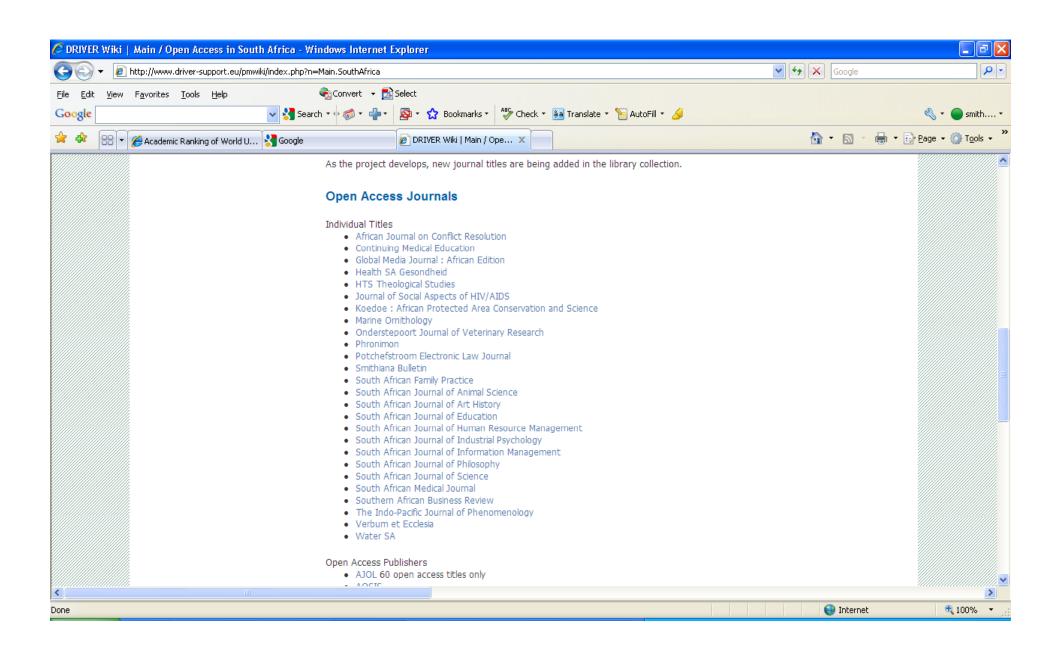


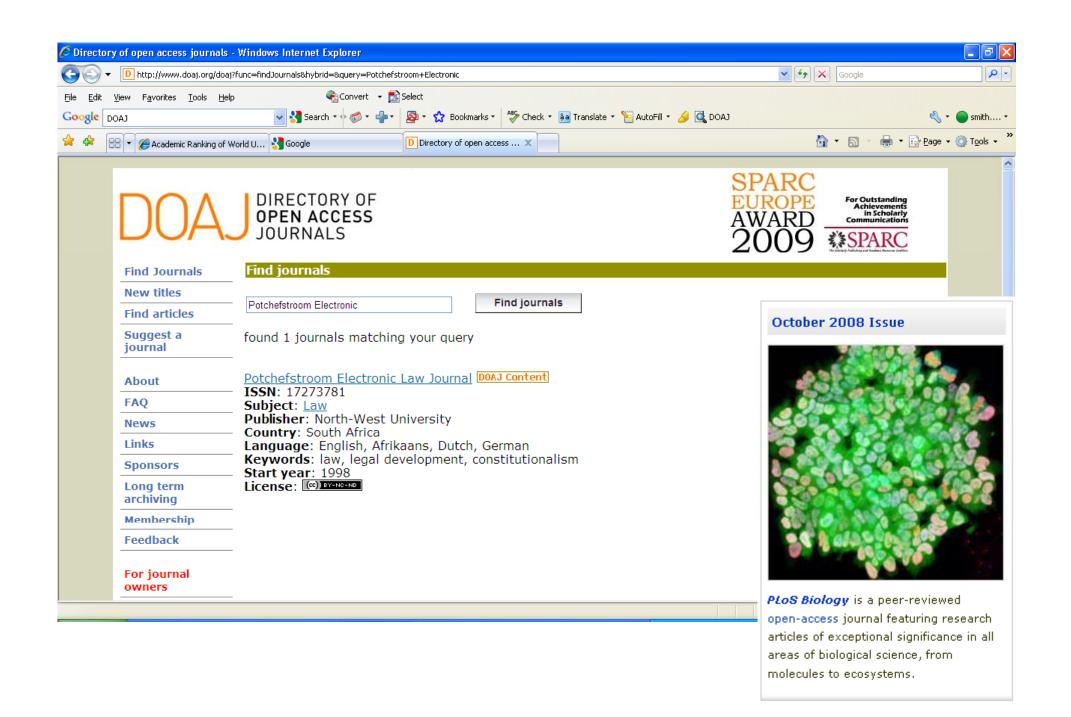
### University of Michigan



# Open Access Journals

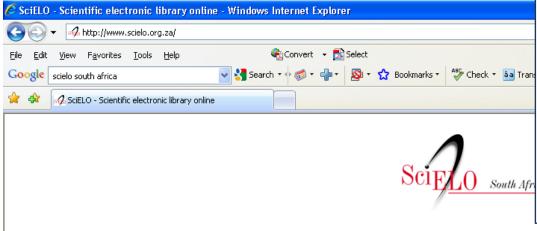












Done

#### Library Collection

Internet

**4** 100%

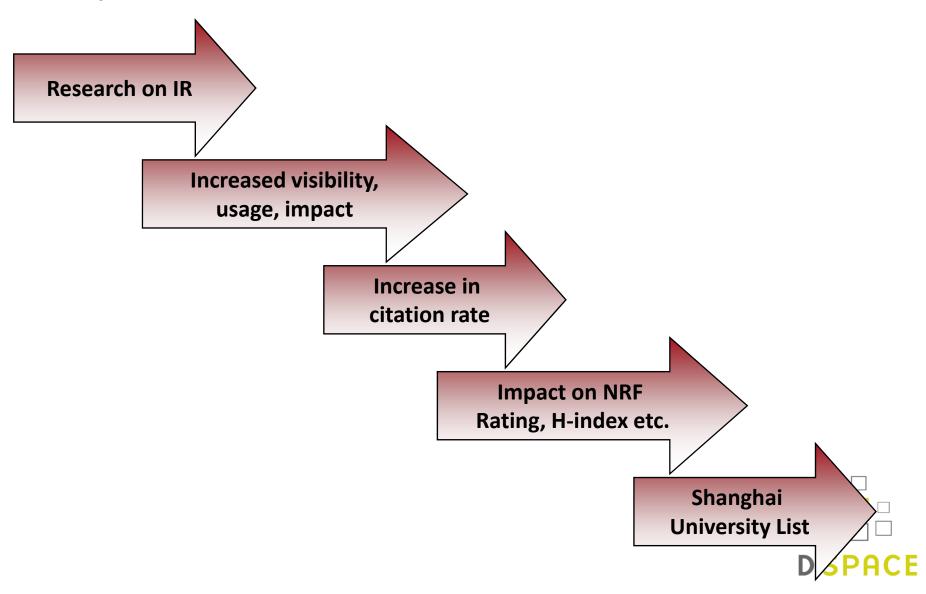
#### Alphabetic list - 8 serials listed

- · Hervormde Teologiese Studies 5 issues
- Koedoe 2 issues
- PER: Potchefstroomse Elektroniese Regsblad 4 issues
- · SAMJ: South African Medical Journal 2 issues
- South African Journal of Education 6 issues
- · South African Journal of Science 12 issues
- · South African Journal of Surgery 2 issues
- Water SA (Online) 3 issues

SciELO.org serial browsing article browsing português alphabetic list author index español subject list subject index search form search form help about this site SciELO The Scientific Electronic Library Online - SciELO South Africa is an electronic library covering a selected collection of South African scientific journals. The library is an integral part of a project being developed by FAPESP - Fundação de Amparo à Pesquisa do Estado de São Paulo, in partnership with BIREME - the Latin American and Caribbean Center on Health Sciences Information, Since 2002, the Project is also supported by CNPq - Conselho Nacional de Desenvolvimento Científico e Tecnológico. The Project envisages the development of a common methodology for the preparation, storage, dissemination and evaluation of scientific literature in electronic format. As the project develops, new journal titles are being added in the library collection. about this site This is the home page of SciELO South Africa Site. The objective of the site is to implement an electronic virtual library, providing full access to a collection of serial titles, a collection of issues from individual serial titles, as well as to the full text of articles. The access to both serial titles and articles is available via indexes and search forms.

SciELO site is an integral part of the EADESD/RIREME/CNDs Droject and it is an application of the methodology being developed

### Impact an IR can have



# Increase in visibility, usage, impact, citation rate

According to studies conducted (Jones, Andrew and MacColl 2006) "open access papers are **read more widely**, and, therefore, **cited more frequently**. The consequence of this is that they have **greater impact**."



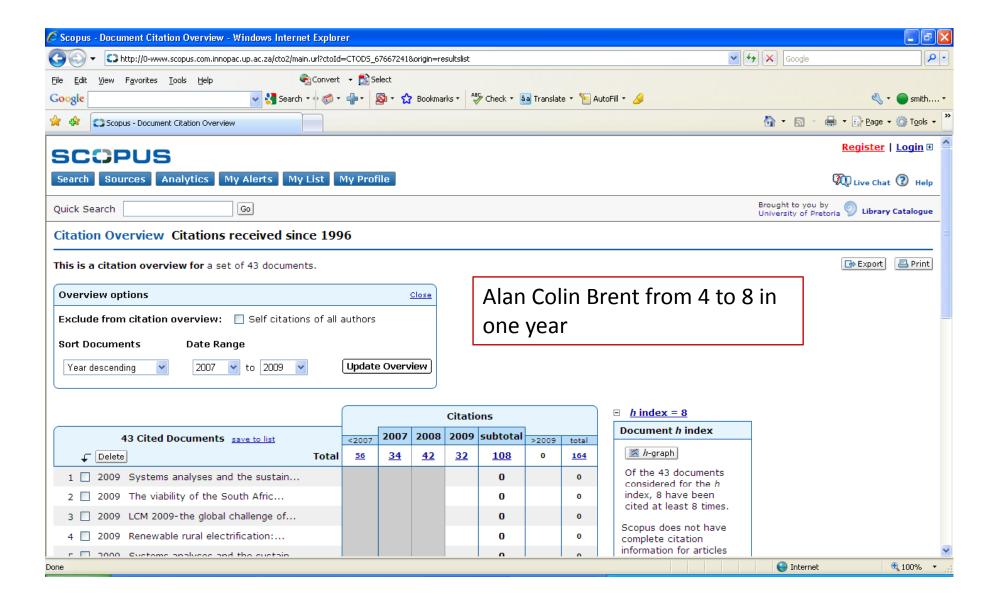
#### Increase in H-index

"The *h*-index is an index that attempts to measure both the scientific productivity and the apparent scientific impact of a scientist. The index is based on the set of the scientist's most cited papers and the number of citations that they have received in other people's publications. The index can also be applied to the productivity and impact of a group of scientists, such as a department or university or country."

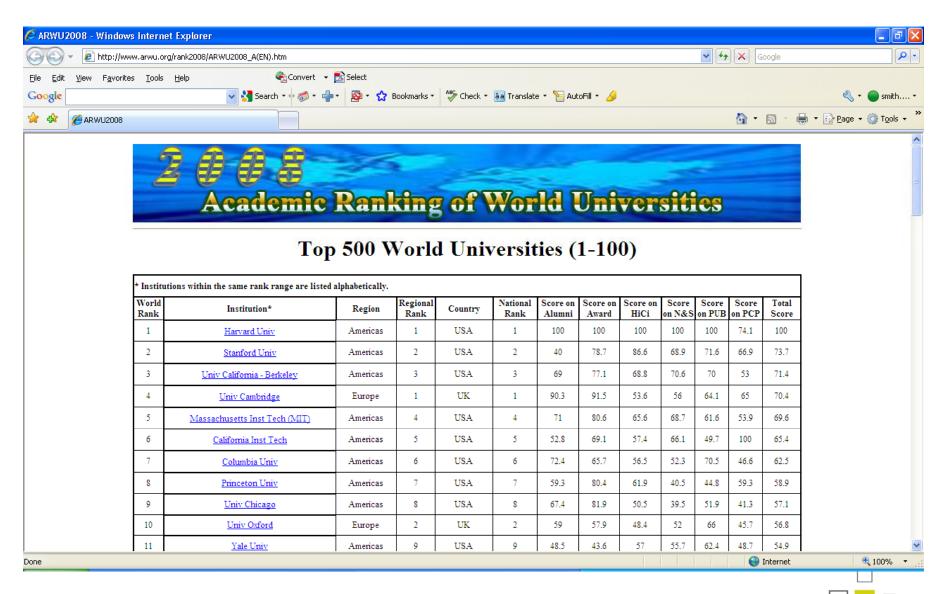
Source: <a href="http://en.wikipedia.org/wiki/H-index">http://en.wikipedia.org/wiki/H-index</a>



#### **Example: Scopus Citation Tracker**



Universities, Universities of Technology and Technikon	A	В	С	Р	Υ	L	Total
Cape Peninsula University of Technology		1	4		2	3	10
Central University of Technology, Free State			4		1	1	6
Durban University of Technology			6		4	2	12
Nelson Mandela Metropolitan University	1	4	31		7	7	50
North-West University	2	8	60	1	11	3	85
Rhodes University	_1_	13	32		4	1	51
Stellenbosch University	7	54	125	2	32	12	232
University of Cape Town	24	84	133	7	20	3	271
University of Fort Hare		1	1		1	3	6
University of Johannesburg	2	11	46		7	3	69
University of KwaZulu-Natal	3	45	78	2	11	3	142
University of Limpopo			- 5		3	1	9
University of Pretoria	5	54	117	1	32	5	214
University of South Africa		13	60		2	6	81
University of the Free State		11	50		8	1	70
University of the Western Cape		11	47		4	5	67
University of the Witwatersrand	14	55	76	3	24	2	174
University of Venda			1				1
University of Zululand			12		1	1	14
Tshwane University of Technology		2	10		5	3	20
Vaal University of Technology					1	1	2
Walter Sisulu University			2				2
Total	59	367	900	16	180	66	1588



Top 500: UCT (200-300); WITS (300-400)



## Back to IR's ...



#### Ways to use Institutional Repositories

- Scholarly communication
- Storing learning materials and courseware
- Electronic publishing
- Managing collections of research documents
- Preserving digital materials for the long term
- Adding to the university's prestige by showcasing its academic research
- Institutional leadership role for the library
- Knowledge management
- Research assessment
- Encouraging open access to scholarly research
- Housing digitized collections



#### Types of material

- Research (scholarly) articles (published peer-reviewed postprints)
- Open lectures
- Conference papers & proceedings
- Image collections
- Audio and audio-visual material
- Digitized special collections which contain very unique material
- Technical reports
- Inaugural addresses
- Theses, Dissertations, Mini-dissertations
- Data sets
- Newspaper clippings
- Etc.



### Digitally born & digitized material



#### **SAMJ FORUM**

#### CLINICAL IMAGES

#### Awaking a sleeping epidemic

Riann van Coller, Elna van Reasburg , Clara Schutte, Delene Brink, Gerhard Welthagen, M.G. Dove

Two patients with African sleeping sickness (SS) presented to the neurology unit, Pretoria Academic Hospital, during 2004 and 2005. SS has shown a recent resurgence, with epidemics in the Sudan, Angela and the Democratic Republic of Congo. The number of infected people in Africa is currently estimated at more than 500 000. According to the World Health Organization (WHO), about 20 Trygmaseens bracei gardierae and 30 T. b. rhadesiness infections are diagnosed yearly outside endemic areas in Africa. Migration, tourism, peacekeeping and military interventions and the re-emergence of SS epidemics might increase hear numbers.<sup>3</sup>

The electroencephalogram (EBC) is often useful in the diagnosis of come and delirium, but has not been widely used in the diagnosis of St. The EBC is proposed as a novel way to follow disease progression, treatment response and treatment-induced encephalography.

#### Case 1

A 27-year-old man presented with a 4-month history of fatigue, less of appetite, intermittent severe headaches, excessive daytime sleepiness, less of concentration and insomnia. He had travelled to Malawi 8 months before admission. His temperature was 38.9°C, he had a palpable hepatomegaly and an unremarkable neurological examination although his cognitive response was slow. Diagnosis of African trypanomissis was made on a Gierma-stained blood smear (Fig. 1).

Shortly after admission the patient had a tonic-clonic seizure, with post-cital confusion. Treatment with surramin was started and repeat blood smears after 48 hours were clear of trypanosames. The cerebroopinal fluid (CSF) showed no trypanosames but a total protein level of 1.2 g/r, glucose 2.1 mmol/l, 4 polymorphs and 82 lymphocytes. WHD-recommended treatment with malansoprol was started:<sup>1</sup>

Since no trypanosomes were isolated from insculated mice the diagnosis of West African trypanosomissis (WAT) was made. Efforeithine was unavailable and treatment with melarsoprol continued. The patient recovered well and returned to the UK.

The authors are in the departments of Neurology and Clinical Microbiology, University of Pretoria. Five months after discharge he presented to the Hospital for Tropical Diseases in London with fever, also piness and an active CSE Diagnosis of a relapse was made which posed a diagnostic dilamma – recurring T. h. gambinue. Treatment with effornithing was given which cleared his condition.

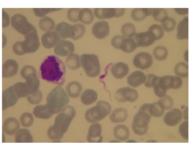


Fig. 1. Giennae smarr (case 1) skonsing extracellular trypamonomiesis permite in the peripheral blood.

#### Case 2

ASS-year-old man presented with a 2-weak history of fever, headache and epicodic confusion. He was a farmer from Kariba in Zimbalowe where he had been treated for malaria without any dinical improvement. He gave a history of multiple testes by bites but did not have a chancre. A Garma-stained blood smaar showed frequences up. On administin his temperature was 39.4°C, but the general examination was unremarkable. He was very sleepy but early arounable. The diagnosis of East African trypanosomiasis (EAT) was confirmed by isolating T. 5. Anodosious from inoculated mice. Treatment with suramin was started and repeated Gierma-stained blood amezes did not show any trypanosomes. The following day he had a fatal caediac arrhythmia, probably due to my occaditis.

Our first patient had a series of EBG recordings. These indicated a low-voltage mixed-frequency background with episodic, generalised but frontally dominant irregular delta activity (Fig. 2). Follow-up showed a gradual improvement in the







250

### Digitally born & digitized material

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 Kirsten<sup>2</sup>, J van Zyl<sup>3</sup> and HJ Sartorius von Bach<sup>4</sup>

#### 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 essociated with increased production. However, to what extent is contributed towards increased production remains a point of contention. Some analysts and severews 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 parity 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 Venda en Lebowa gelimplimenteer is. Die belangrikheld en bydrae van voorligting en opleiding in die sukses van hierdie program biyk duidelik 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 opieiding en voorligting tot die verhoging in produksie bydra, biy egter 'n punt van dispuut. Ontedings in die artikel toor geler aan dat vergelykbare huishoudings meer produseer indien hulle gepaste voorligting ontvang. Dit wil dus voorkom asof opleiding en voorligting ten minates gedeeltelik bydra tot hoër opbrengste in die gebiede waar die kleinboer ondersteuningsprogramme geïmplimenteer is.

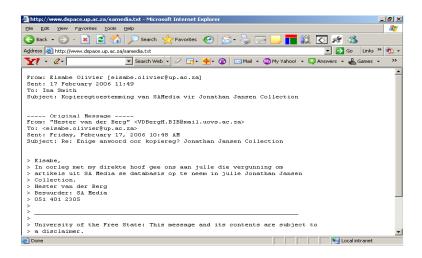
#### 1. INTRODUCTION

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

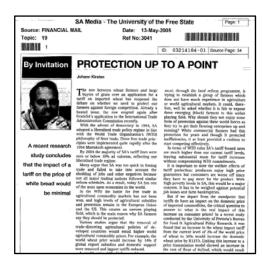
by improving farmers' access to support services over a broad base in a sequential and evolutionary manner (Van Reeyen, 1003).

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

>gi|73624990|gb|DQ103533.1| Botryosphaeria rhodina strain CMW9074 18S ribosomal RNA gene
GGAAGGATCATTACCGAGTTTTCGAGCTCCGGCTCGACTCTCCCACCCTTTGTGAACGTACCTCGTTGC
TTTGGCGGCTCCGGCGCCCAAAGGACCTTCAAAACTCAAACGCAAGGAGCGTCTGATAAAACAAGTT
AATAAAACTAAAACTTTCAACAACGGATCTCTTGGTTCTGGCATCGATGAAGAAGGCACAGGGAAATGCGATA
AGTAATGTGAATTGCAGGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCTTGGTATTCCG
GGGGGCATGCCTGTTGGACGGTCATTACAACCCTCAAGCTCTTGTAATTGAATGACCCCCCTCACTGC
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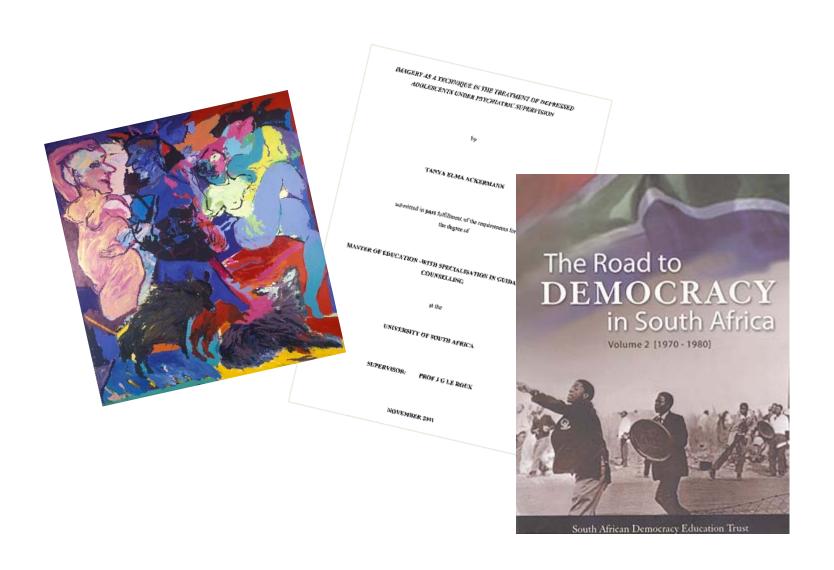








### Identify Champions to work with



### Digital Repository Software

#### Proprietary

Proquest Digital Commons CONTENTdm Oracle, Millennium

#### Open Source

DSpace Fedora E-Prints Greenstone D-NET v. 1.0 DRIVER

#### Hosted Option

SABINET (CONTENTdm)
DRIVER (D-NET v.1.0)
D-NET v. 1.0 DRIVER



#### **About Open Source Software**

- Promotes collaboration and knowledge sharing between institutions who have the expertise, and the ones who do not have the expertise or necessary resources to start such a service
- All participants benefit, and not only the vendor
- Product belongs to all, and lots of support is available from the open source community
- No marketing is involved therefore there is not a clever salesman involved selling the product, only focusing on the stuff the program can do, and not the limitations.
- What you see is what you get
- Open Source software is flexible
- It promotes openness and creative thinking
- It is open for scrutiny
- It is searchable and retrievable via the World Wide Web
- It can be used by institutions with minimal resources
- World standards and open standards are used, which make it a very favorable choice



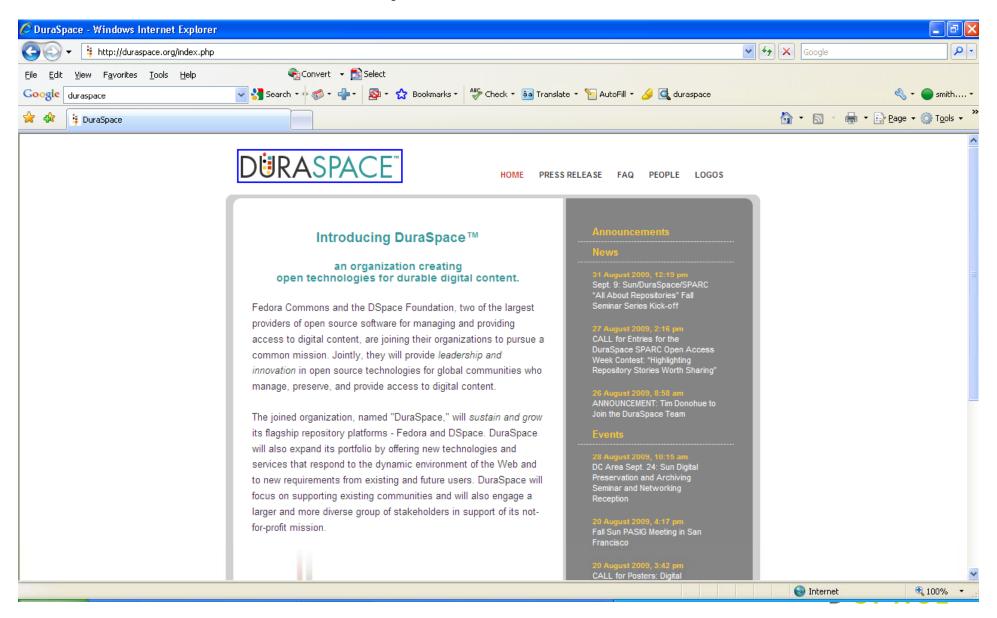
#### About DSpace <a href="http://www.dspace.org/">http://www.dspace.org/</a>

#### Top Reasons to Use DSpace

- +Largest community of users and developers worldwide
- +Free open source software
- +Completely customizable to fit your needs
- +Used by educational, government, private and commercial institutions
  - +Can be installed out of the box
  - I Can manage and preserve all types of digital content



### Collaboration: DSpace & Fedora



# Benefits of an IR (DSpace)

- Research out quickly, worldwide
- 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
- Central archive of research
- Persistent URL
- Preservation function
- Full text searchable
- E-workflow for quality control
- Distributed/ decentralised input
- Limit access on various levels
- Information Model (Communities & Collections)



# DSpace Information Model (3 levels or more)

### **Top-Level Community**

Faculty e.g. Economic and Management Sciences

#### **Sub-Community**

Department e.g. Accounting

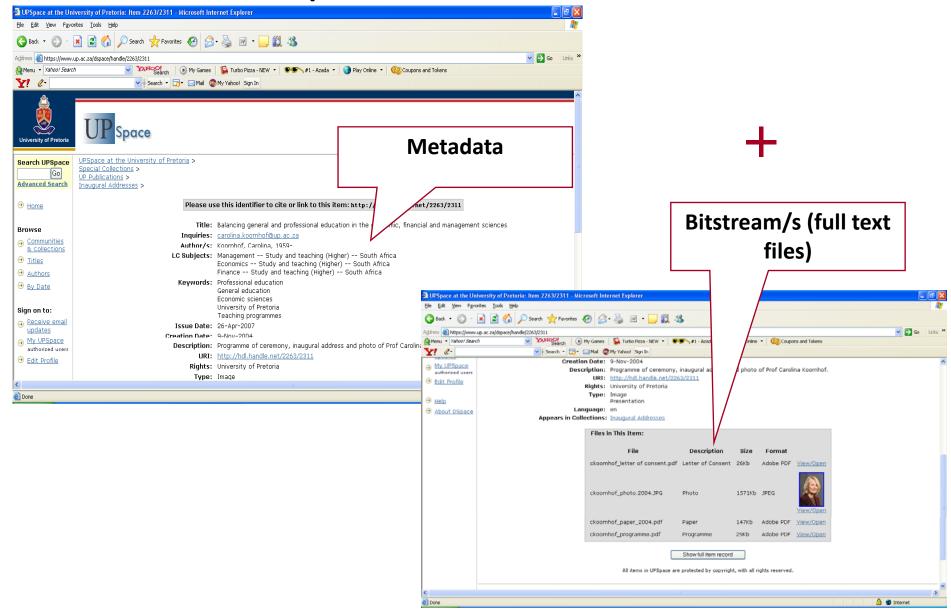
#### **Collections**

E.g. Theses (Accounting)
Dissertations (Accounting)
Research Articles (Accounting)
Open Lectures (Accounting) etc.

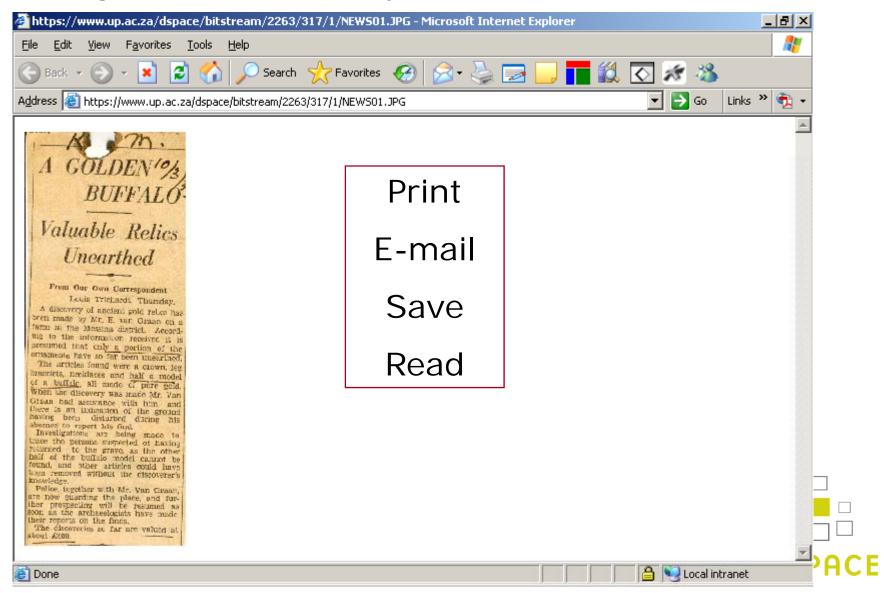
Submit items on Collection Level



# An Item in DSpace



# Using an Item in DSpace

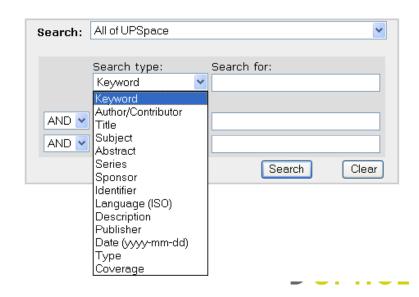


# Searching in DSpace

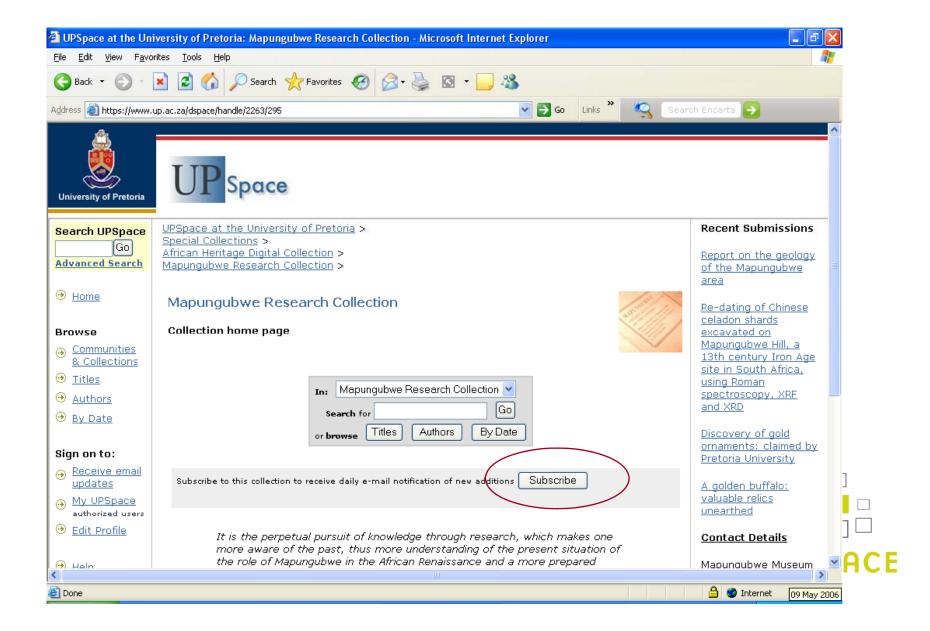
#### **Search Options**

- Full text
- Keyword (Basic Search)
- Browse
  - Communities & Collections
  - **Titles**
  - Authors
  - Date





### Subscribe to a Collection



# Prior to submitting an item to the IR

- Obtain permission (copyright clearance, letters of consent)
- Scan/ Digitize
- File format (pdf)
- File naming convention
- Convert/ edit documents
- Add watermark/ header/ footer



# Dealing with legal issues



# Intellectual Property Rights

- Exclusive rights to the creative work, commercial symbol, or invention which is covered by it – remains with owner/creator
- Permission obtained from rights holder
- DC Element "Rights" individual items
- Add "Rights"- document/ file together with item
- Copyright/ Rights note for Collection/ Community

Rights: Africa Association for Health, Physical Education, Recreation, Sport and Dance. This article is embargoed by the publisher until December 2009



# Copyright

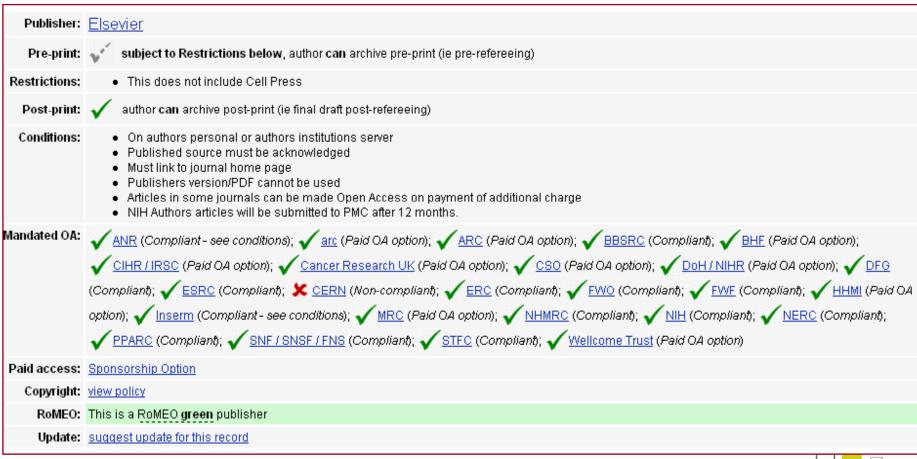
- Credit copyright holder for work
- DC Element "Rights" individual items
- Copyright/ Rights note for Collection/ Community
- Two approaches:
  - Publisher policy on SHERPA ROMEO else;
  - Contact publisher directly and obtain permission archive letter of consent on your IR



Rights: Elsevier

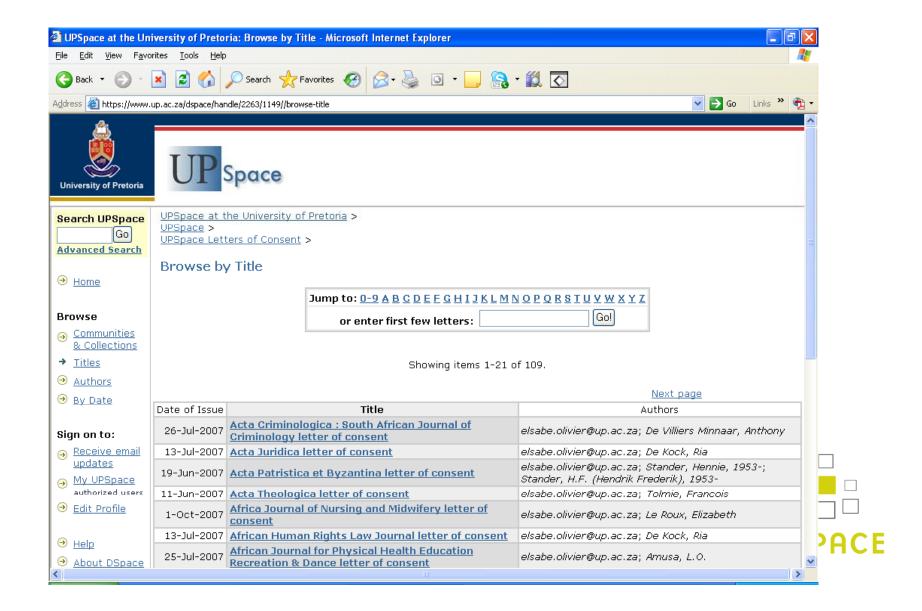


# Publisher's policy on self-archiving





### Letters of Consent Collection on IR



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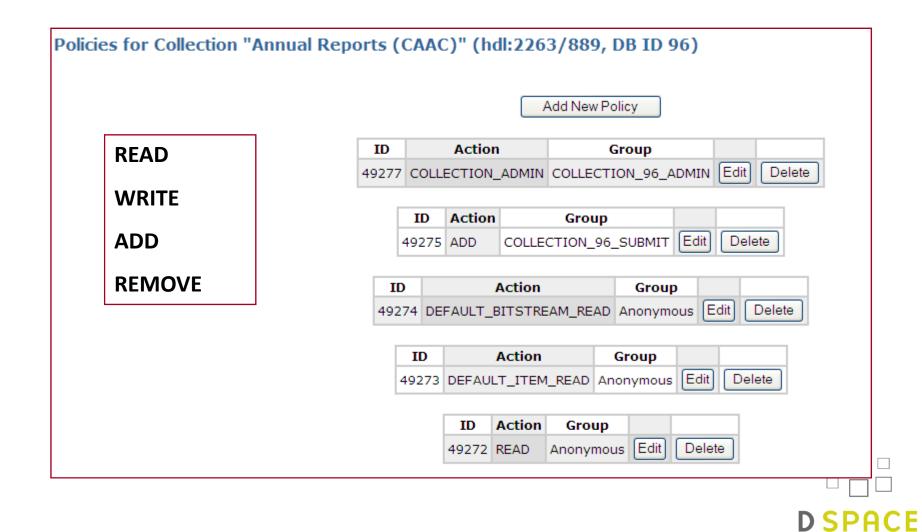


# Limiting access in DSpace





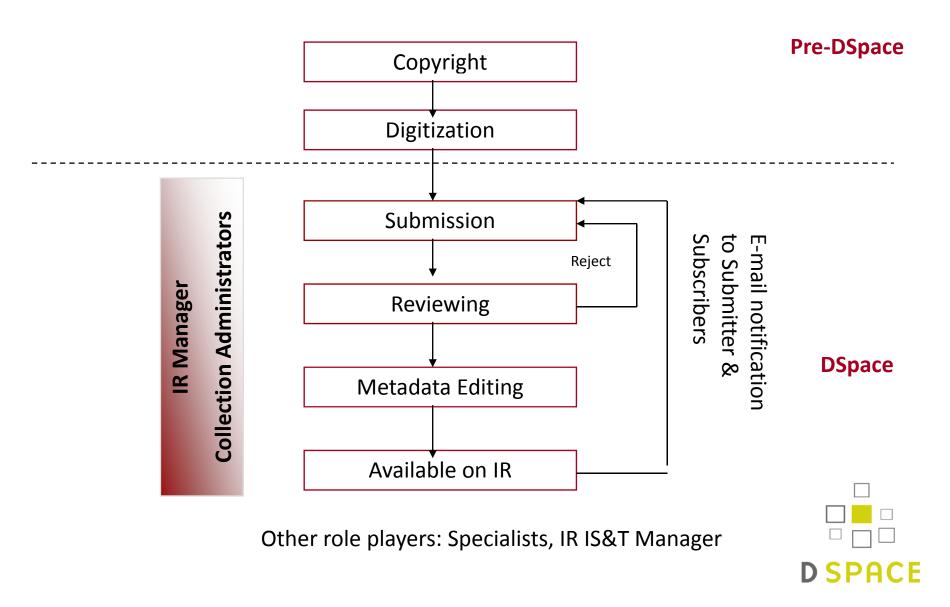
# Limiting access in DSpace



# Roles & Responsibilities



### Workflow



# ... Subject Librarians

**Role description** (collection management, identify projects, prioritise, implement, training, integration, marketing)

#### **Benefits**

- Easy to access
- Stay updated with regard to research conducted
- Encourages collaboration between faculty & Library
- Positions library within faculties & University
- Develop new skills
- Support researchers



# ... Cataloguers

**Role description** (cataloguing & classification, experience in language, diacritics, and standard making, taxonomies and controlled vocabularies, analytical and detail-oriented nature, understanding of the importance of balancing the need for standards with the demands for interoperability )

#### **Benefits**

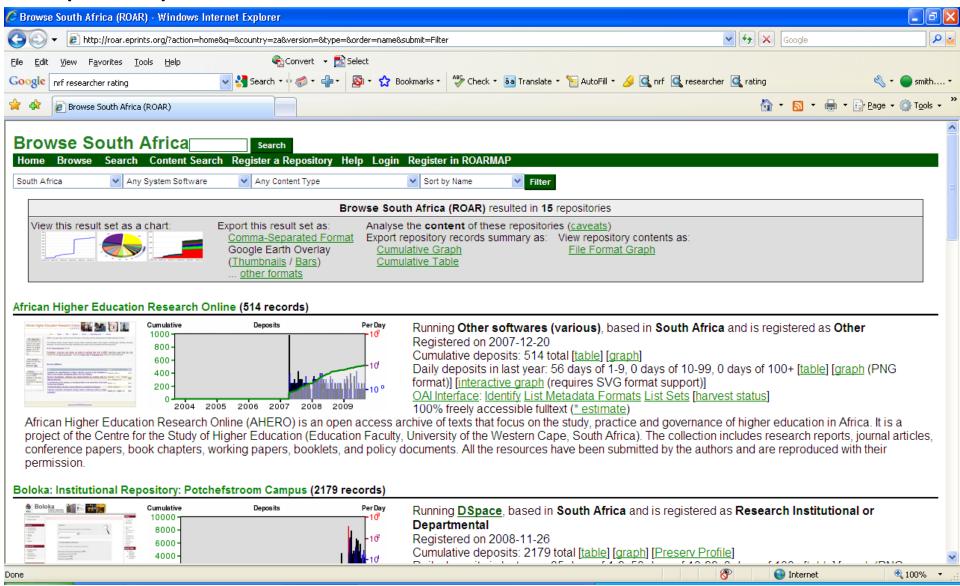
- New skills
- Increased visibility and expertise
- Demonstrate the relevancy of cataloguers in digital age
- Connect more closely with broader range of library-wide goals
- Networking
- You have a great deal to offer!



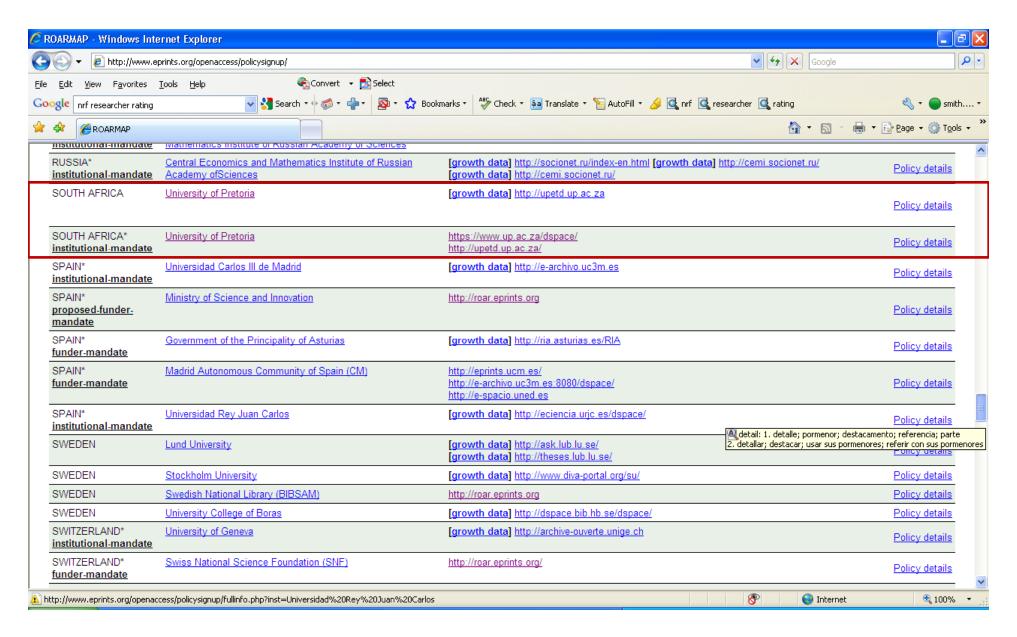
# International Landscape

# Registry of Open Access Repositories

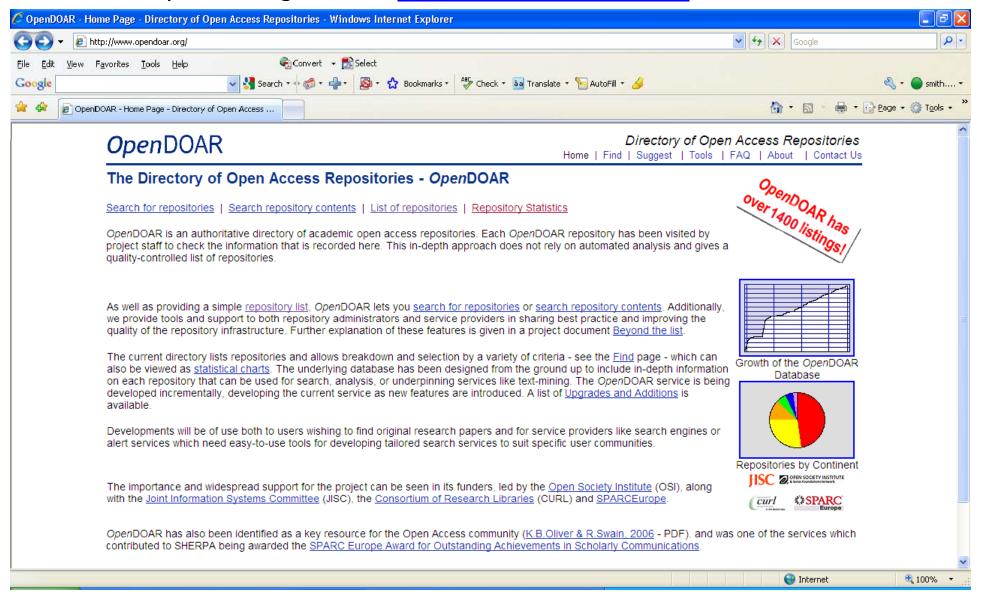
(ROAR) <a href="http://roar.eprints.org/">http://roar.eprints.org/</a> Tim Brody, University of Southampton, UK



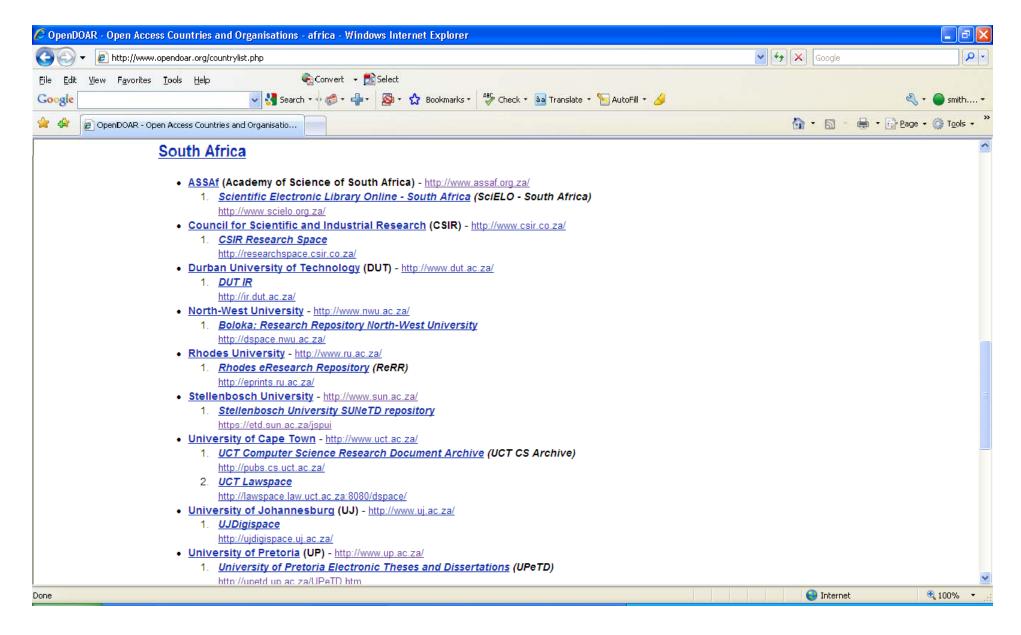
## ROARMAP http://www.eprints.org/openaccess/policysignup/



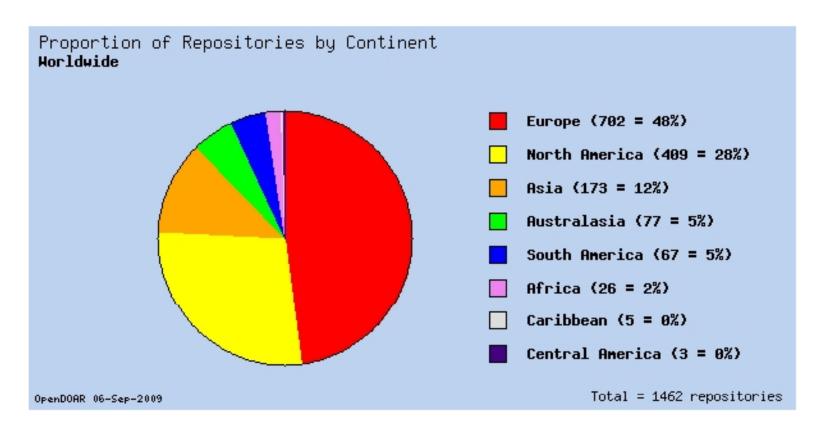
# openDOAR (over 1 400 listings)



# openDOAR (Africa = 13)

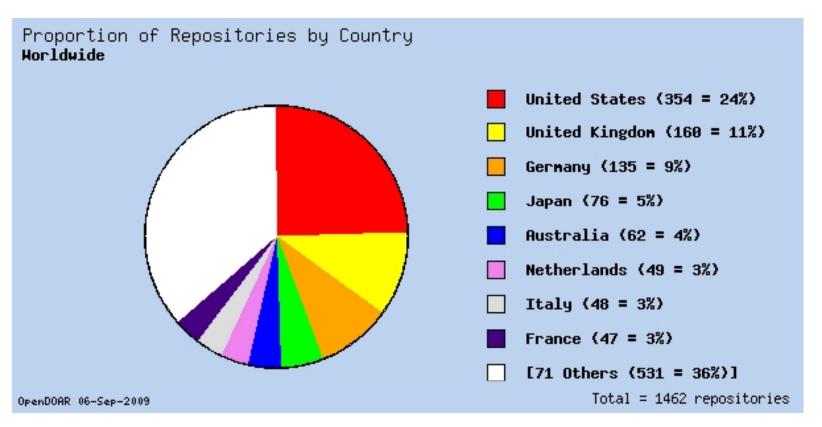


# openDOAR – By Continent



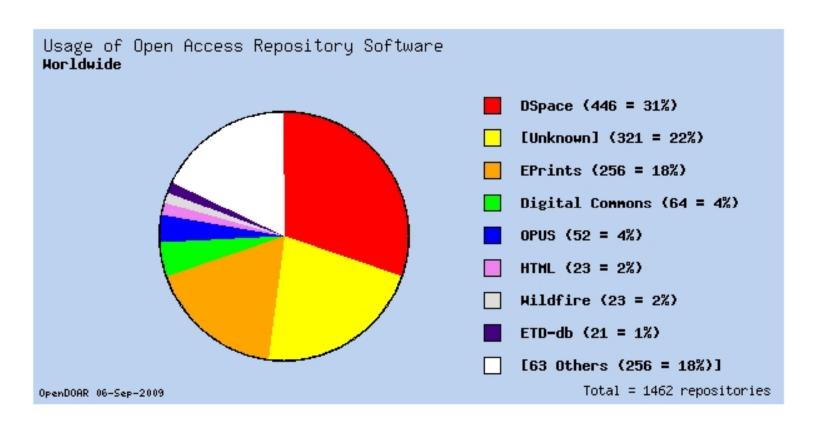


# openDOAR – By Country



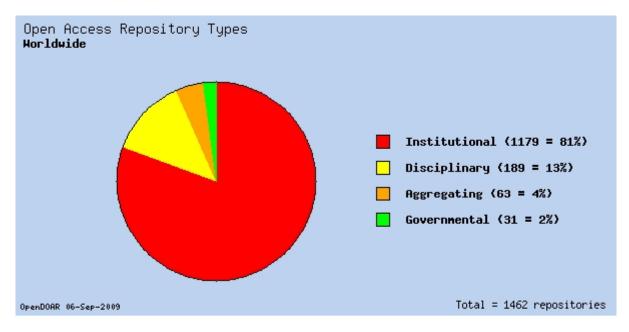


# openDOAR – Repository Software





# openDOAR – Repository Types

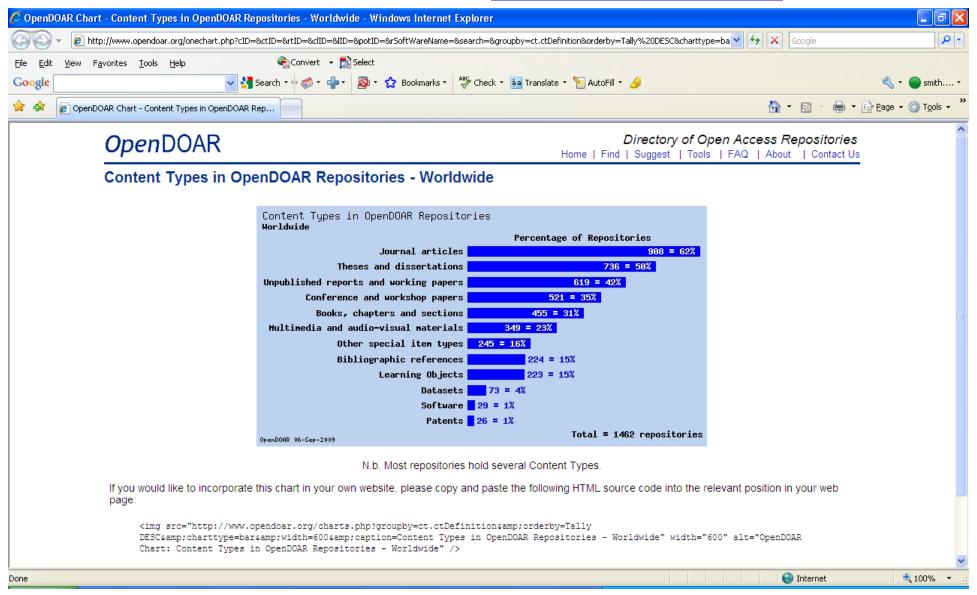


Further Explanation of Repository Types

Undetermined	A repository whose type has not yet been assessed	
Institutional	An institutional or departmental repository	
Disciplinary	A cross-institutional subject repository	
Aggregating	An archive aggregating data from several subsidiary repositories	
Governmental	A repository for governmental data	



# openDOAR – Content Types



# **DSpace Registry**

http://www.dspace.org/index.php?option=com\_content&task=view&id=596&Itemid= 180

South Africa	Centre of Excellence for Invasion Biology	http://ir.sun.ac.za/cib
South Africa	Council for Scientific and Industrial Research (CSIR)	http://researchspace.csir.co.za/dspace/
South Africa	Durban University of Technology	http://ir.dut.ac.za:8080/dspace/
South Africa	North-West University	http://dspace.nwu.ac.za/
South Africa	Stellenbosch University	http://ir.sun.ac.za/dspace
South Africa	University of Cape Town	http://lawspace.law.uct.ac.za/
South Africa	University of Johannesburg	http://digispace.uj.ac.za:8080/dspace/
South Africa	University of Pretoria	https://www.up.ac.za/dspace/



### Outcomes of an IR

- New roles & responsibilities
- Communities of Practice (social networks) will be established
- Knowledge transfer
- Organizational learning
- Change of mind-sets
- Empowerment
- Teamwork & collaboration
- Management support



# Blogs to follow ...

Eve Gray
 Gray Area: <a href="http://blogs.uct.ac.za/blog/gray-area">http://blogs.uct.ac.za/blog/gray-area</a>

Peter Suber
 Open Access News:
 http://www.earlham.edu/~peters/fos/fosblog.html

