

Three green apples are arranged on a white background. One apple is in the foreground, slightly to the right, and two are behind it, one to the left and one to the right. The text is overlaid on the apples.

Open Access;
South Africa;
& Berlin4

Jennifer A. De Beer

sivulile



open access
south africa

3 May 2006
FAO – Rome, Italy

Overview

- Open Access
 - defined
 - South Africa
 - Berlin4

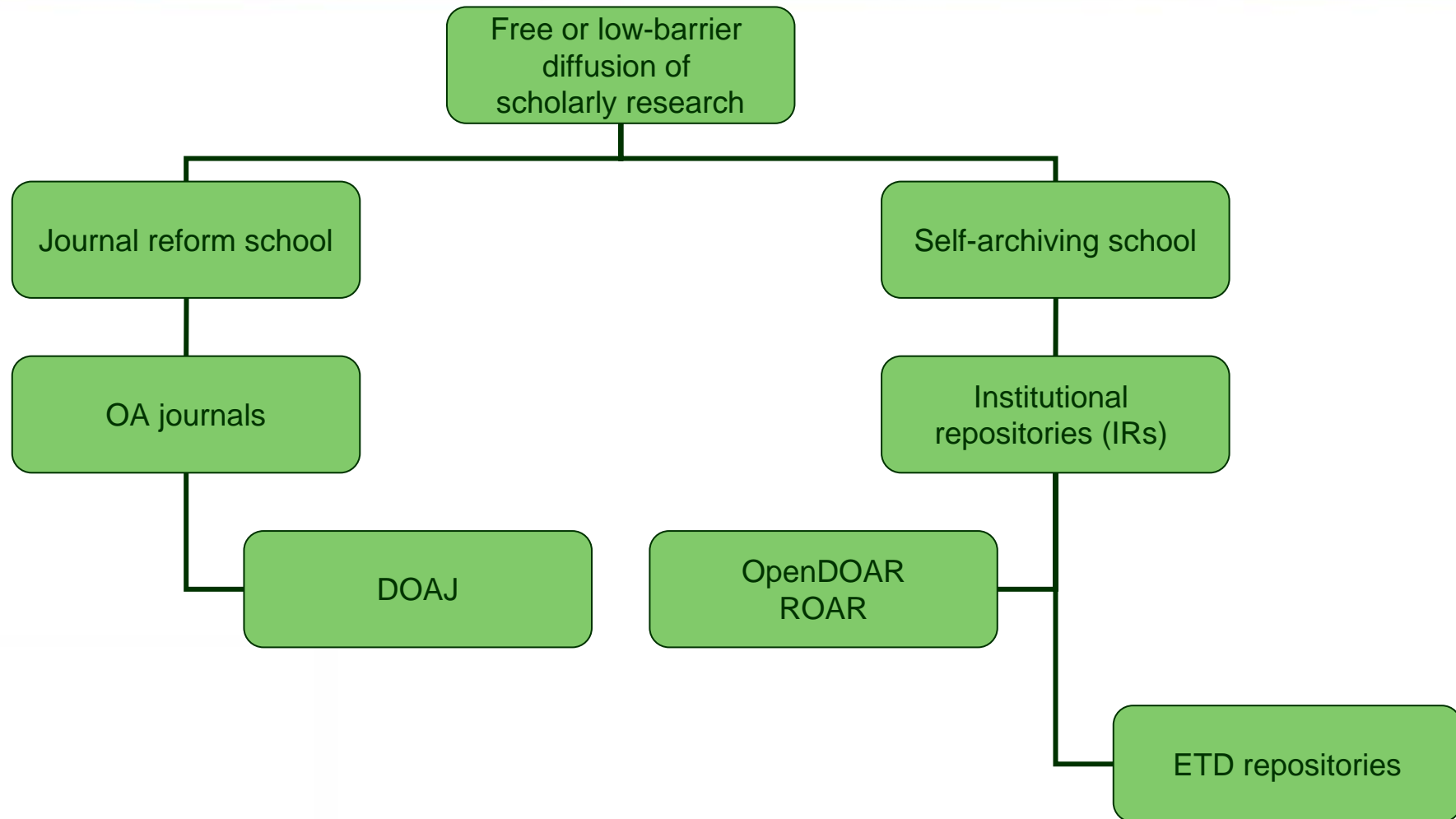


OA defined

What is OA scholarly communication?

- Numerous popular definitions (Berlin, Budapest, Bethesda, ...) :
 - central tenet
 - reader does not pay for access;
 - author may or may not pay for publication/distribution.

Open Access defined



Gold & Green

Harnad's gold and green roads to OA

UNIFIED DUAL OPEN-ACCESS-PROVISION POLICY:

BOAI-2 ("gold"): Publish your article in a suitable open-access journal whenever one exists.

BOAI-1 ("green"): Otherwise, publish your article in a suitable toll-access journal and also self-archive it.

Why?

- Articles freely available online are more highly cited. For greater impact and faster scientific progress, authors and publishers should aim to make research easy to access.

Steve Lawrence. 2001. "Online or Invisible?"

What OA is not

- It is not self-publishing
- Does not do away with peer-review
- Does not advocate copyright infringement
- Does not replace current journals system
- See also “(Mis)Leading Open Access Myths”
<http://www.biomedcentral.com/openaccess/inquiry/myths/>



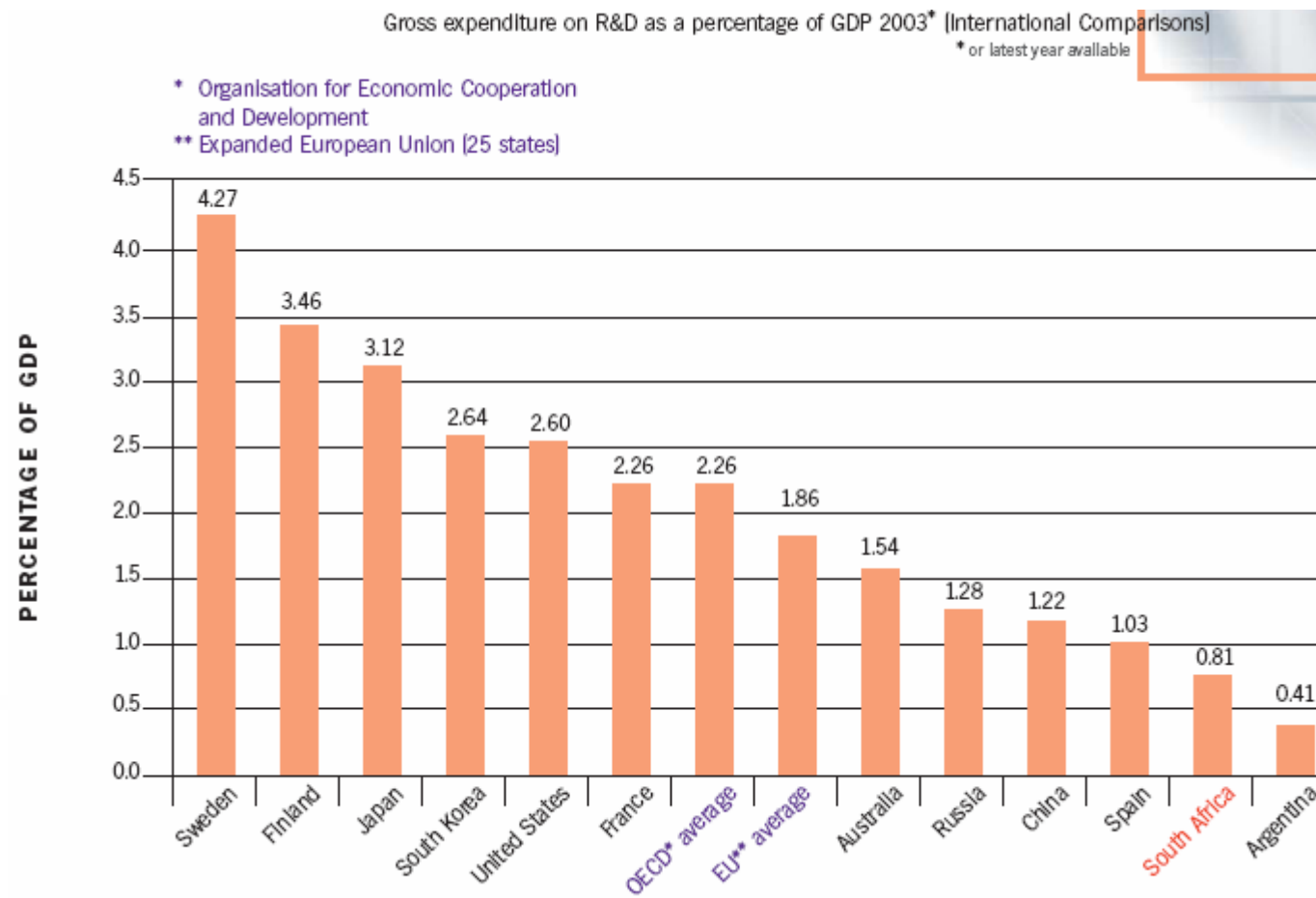
South Africa

Key Science Indicators

INDICATOR	VALUE	
	2001/02	2003/04
Gross domestic expenditure on R&D – GERD (millions Rands)	7 488.1	10 082.6
GERD as a percentage of GDP ^d	0.76	0.81
Total R&D personnel (FTE) ^{b,c}	21 195	25 185
Total researchers (FTE) ^{b,c}	14 182	14 129
Total researchers per 1000 total employed (FTE) ^{b,c,d}	3.1	2.2
Total R&D personnel per 1000 total employed (FTE) ^{b,c,d}	4.6	3.9
Estimated civil GERD as a percentage of GDP	0.71	0.72
Total researchers (headcount) ^c	26 913	30 703
Women researchers as a percentage of total researchers ^c	36.0%	38.0%
<p>^aThe 0.76% for 2001/02 is as reported in the 2001/02 R&D Survey Report and is not based on revised GDP figures.</p> <p>^bFTE – Full Time Equivalent</p> <p>^cFollowing OECD practice, doctoral students are included as researchers.</p> <p>^dChanges in the methodology used by Statistics South Africa in the Survey of Employment and Earnings have resulted in a 39% increase in the total number of employees reported for the formal non-agricultural sectors between March 2002 and March 2004.</p>		

Source: Research & Experimental Development Survey 2003/2004
www.hsrc.ac.za/RnDSurvey/ (April 2005)

GERD / GDP (int'l)

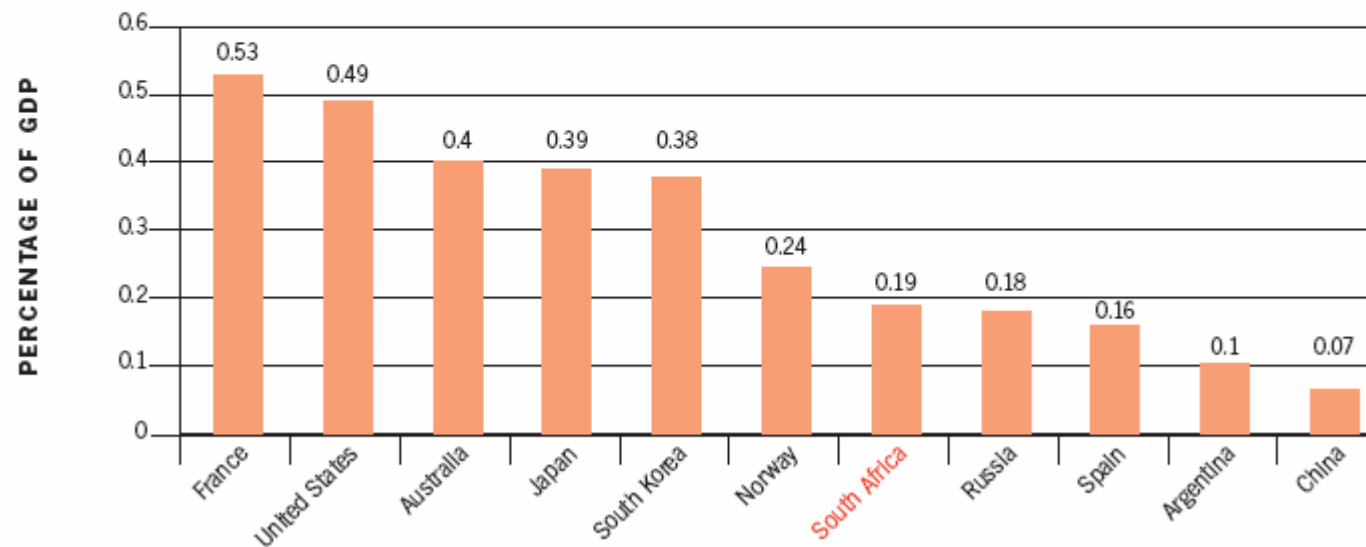


Basic research / GDP (int'l)

(responsiveness to new knowledge)

Basic research as a percentage of GDP 2003* (International Comparisons)

*or latest year available



FTE researchers (int'l)

Number of Full Time Equivalent (FTE) researchers per 1000 total employed in 2003* (International Comparisons)
*or latest year available

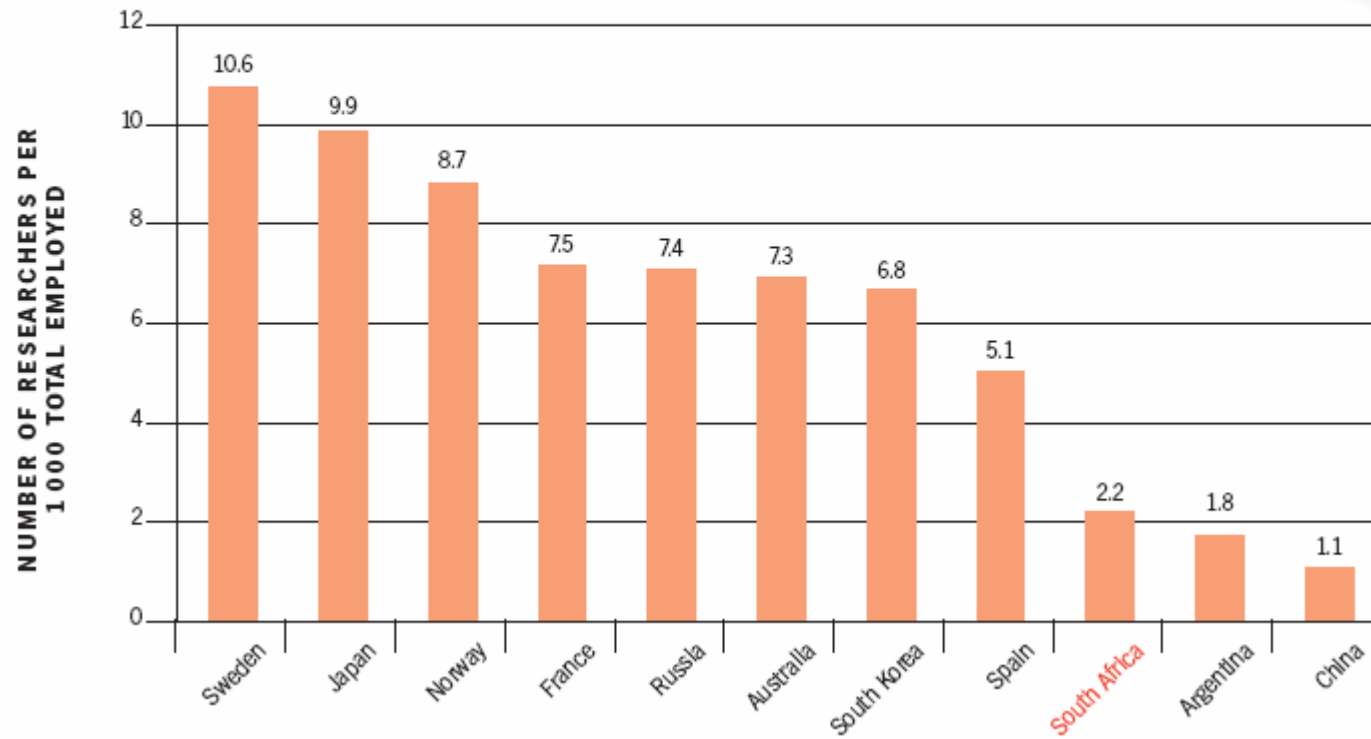


Table 2 Number of JCR indexed journals published in selected countries*

Country	Journal in SCI	GERD/GDP
USA	2257	2.74
UK	1236	1.89
Netherlands	565	1.89
Germany	431	2.51
France	150	2.20
Switzerland	950	2.63
Canada	74	1.82
Italy	67	1.07
Australia	64	1.55
Denmark	59	2.39
Spain	26	0.96
Hungary	18	1.01
Ireland	18	1.17
SA	17	0.76
Sweden	17	4.27
Belgium	13	2.17
Finland	11	3.42
Romania	5	0.38
Greece	4	0.64
Portugal	0	0.93
Luxembourg	0	1.71

2001/02
figure

* a) ISI *Journal Citation Reports*: <http://www.jcr4.isi.knowledge.com>

b) *OECD Main Science & Technology Indicators 2003/2*

Science actors

- Science councils (eight)
- National facilities (e.g. iThemba Labs (former National Accelerator Centre))
- Universities (35 => 22)
- Government departments
- Public corporations
- Private enterprise (largest funder of R&D; gov. 2nd largest funder)

SA research output

- 0.5% of world publications (ISI)
 - 50% of African publications (ISI);
- 0.1% of world patents;
 - 98% of African patents (USPTO)
- Growth absolute # of publications
- declining rate of publication (cf. global)
- SAKnowledgebase: 99,000 articles indexed (1990-2004)
- Government incentivised scholarly publication system (akin to Australia, Spain)



OA sc initiatives in
South Africa

Earliest study

- Jennifer A. De Beer, 2005. Open Access scholarly communication in South Africa: current status, significance, and the role for National Information Policy in the National System of Innovation. Thesis.

<http://eprints.rclis.org/archive/00003922/>

SIVULILE

“we are open” – isiXhosa



Hussein, Susan, Jennifer, Dale



- Informal OA working group

- Hussein Suleman

hussein AT cs.uct.ac.za

- Susan Veldsman

sasli AT cosalc.ac.za

- Jennifer De Beer

- Dale Peters

petersd AT ukzn.ac.za

- Dynal Patel

dpatel AT cs.uct.ac.za

SIVULILE timeline

- July 2004 - first SA OA conference (OSI / SASLI)
- November 2004 - SIVULILE 1st planning meeting
- May 2005 - 1st IR workshop on DSpace (OSI eIFL / SASLI)
- December 2005 - 2nd workshop: building DLs with Greenstone (UNESCO / SASLI)
- May 2006 – ETD feasibility and requirements study (CHELSA + SA NRF)

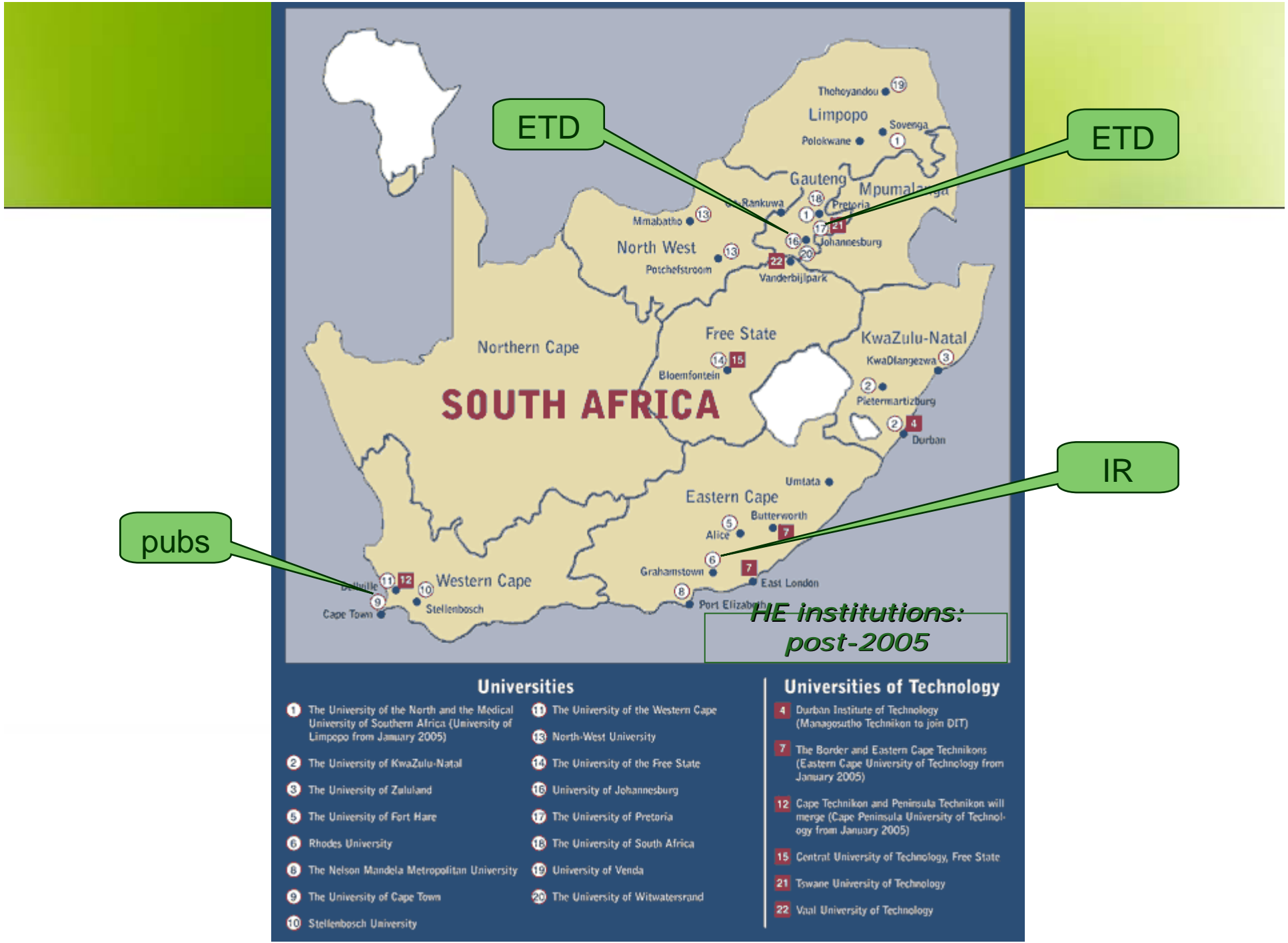
DSpace training workshop (a.k.a. how to build your own IR) – May 2005



Self-archiving (1)

- ROAR & OpenDOAR

- Rhodes University
<http://eprints.ru.ac.za>
- Univ of Johannesburg (incl. RAU)
<http://etd.rau.ac.za>
- Univ of Pretoria
<http://upetd.up.ac.za>
- University of Cape Town - Computer Science
<http://pubs.cs.uct.ac.za>
- **University of the Free State; University of South Africa; University of the Western Cape; University of the Witwatersrand; and North West University



ETD

ETD

IR

pubs

HE institutions:
post-2005

Universities

- 1 The University of the North and the Medical University of Southern Africa (University of Limpopo from January 2005)
- 2 The University of KwaZulu-Natal
- 3 The University of Zululand
- 5 The University of Fort Hare
- 6 Rhodes University
- 8 The Nelson Mandela Metropolitan University
- 9 The University of Cape Town
- 10 Stellenbosch University
- 11 The University of the Western Cape
- 13 North-West University
- 14 The University of the Free State
- 16 University of Johannesburg
- 17 The University of Pretoria
- 18 The University of South Africa
- 19 University of Venda
- 20 The University of Witwatersrand

Universities of Technology

- 4 Durban Institute of Technology (Managosutho Technikon to join DIT)
- 7 The Border and Eastern Cape Technikon (Eastern Cape University of Technology from January 2005)
- 12 Cape Technikon and Peninsula Technikon will merge (Cape Peninsula University of Technology from January 2005)
- 15 Central University of Technology, Free State
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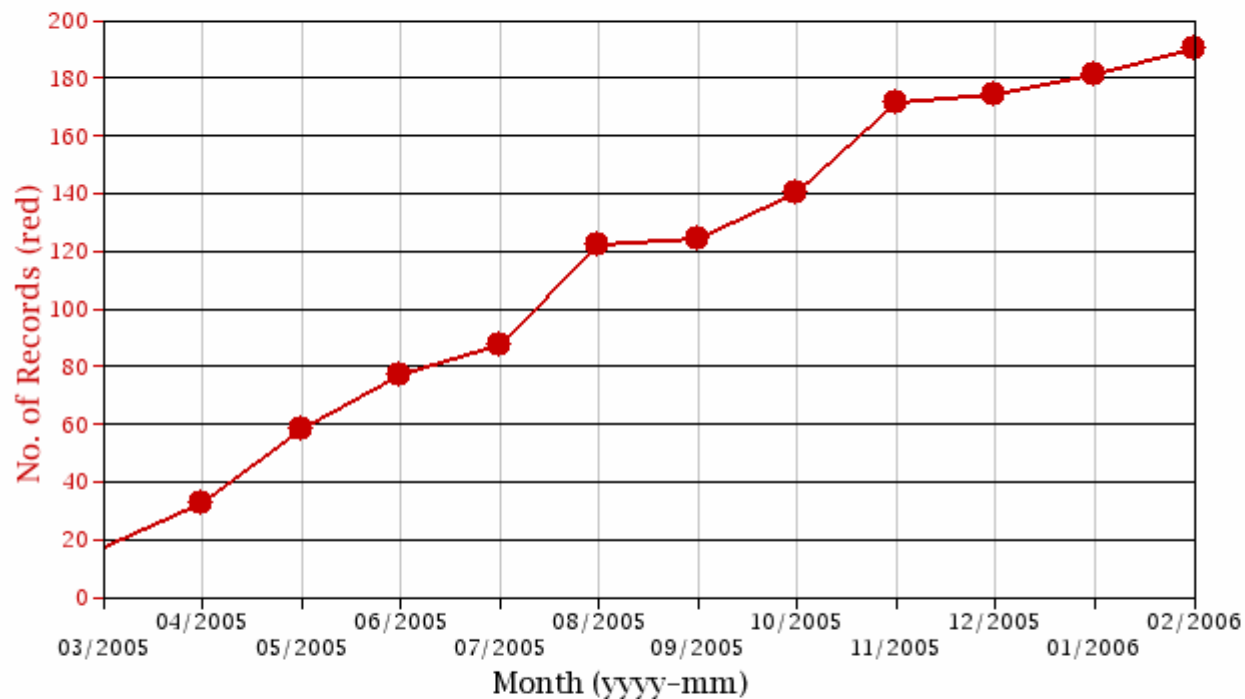
Image source: <http://www.heads.org.za>

Self-archiving (2)

- Rhodes eResearch Repository
 - First IR (cf. ETD) in South Africa
 - Launched officially 2 Feb 2006
 - All content Open Access – policy decision taken in 2005
 - Possible embargo period (1 – 5 years) for theses
 - 15,010 abstract views => 120 distinct countries;
 - 15,831 document downloads => 139 distinct countries
 - Eprints Community founder member

Rhodes eResearch Repository

Generated by <http://archives.eprints.org/>



Usage Statistics for Rhodes eResearch Repository



























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 South Africa	966	1733	
 Mauritius	1788	1132	
 United Kingdom	476	825	
 India	144	539	
 Rhodes University	1304	491	
 Japan	406	267	
 Germany	81	215	
 Canada	128	204	
 Australia	104	196	
 China	59	188	
 Sweden	302	179	
 Spain	122	169	

OA Publishing

- Human Sciences Research Council
(www.hsrcpress.ac.za)
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Jo Lorentzen

Higher education and work: Setting a new research agenda
Charlton Koen

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Latest study

- Allison Möller, 2006. The case for open access publishing, with special reference to open access journals and their prospects in South Africa. Thesis.

<http://eprints.rclis.org/archive/00005815/>

SA NRF/ICSU/CODATA

- CODATA Workshop on Strategies for Permanent Access to Scientific Information in Southern Africa

<http://stardata.nrf.ac.za/html/workshopCodata.html>

- Exec Summary (next slide)

<http://stardata.nrf.ac.za/html/ExecSummaryFinal.doc>

Exec summary excerpt

- Scientific and technical (S&T) data and information policy (p5)
 - o CODATA outputs should include examples of **national policies** that establish the record-keeping policies of various nations such as the USA, United Kingdom and Australia. This could help inform the South African National Archives Act, which currently makes no mention of the **mandatory** collection and preservation of S&T data **and information**, but refers only to public administrative records.
- And further regarding STM journals (p8):
 - The following kinds of actions should be taken with regard to scientific, technical and medical (STM) journals:
 - · Establish and implement **policy interventions by research funders** (including governments and institutions) that:
 - o **Mandate** that scholars make pre-prints and e-prints of their research available via an open access medium.
- [My emphasis in bold]

Academy of Science of South Africa

- Recommendation No. 6: that the **Department of Science and Technology** takes responsibility for ensuring that **Open Access initiatives are promoted** to enhance the visibility of all South African research articles and to make them accessible to the entire international research community. Specifically:
 - Online, open access ("**Gold route**") versions of South African research journals should be funded in significant part through a per-article charge system;
 - A federation of institutional Open Access repositories, adhering to common standards, should be established ("**Green route**"), with resources made available to help institutions in the preliminary stage, this virtual repository to be augmented by a central repository for those institutions which are unable to run a sustainable repository;
 - National **harvesting of South African Open Access repositories** should be undertaken as a matter of urgency, preferably by the NRF; and
 - The importance of **affordable bandwidth** for research communications for this purpose be drawn to the attention of DST officials negotiating for better rates.
- [My emphasis in bold]

OA activity summary

- ca. 2004
- SIVULILE est.
- 4 OA journals; 2 gov. accredited (DOAJ)
- 7 IRs (5 OA)
- 1 (of 8) science council (HSRC) has adopted OA publication model
- To date high-level gov. OA endorsement of access to
 - data OECD – Jan 2004;
- De Beer, JA.
<http://eprints.rclis.org/archive/00003922/>
- ca. 2005/06
- 5 OA journals; 2 gov. accredited (DOAJ)
- 6 IRs (4 OA)
- Another science council (CSIR) going OA?
- To date high-level OA endorsement of access to
 - data & information - SA NRF & ICSU/CODATA – Sept 2005 & April 2006
 - OA – Academy of Science of South Africa – March 2006
- Möller, A.
<http://eprints.rclis.org/archive/00005815/>



Berlin 4
from Promise to Practice

Berlin4 overview (1)

- Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities
 - ...we have drafted the Berlin Declaration to promote the Internet as a functional instrument for a global scientific knowledge base and human reflection and to specify measures which research policy makers, research institutions, funding agencies, libraries, archives and museums need to consider
- OA = comprehensive source of human knowledge and cultural heritage that has been approved by the scientific community
- Oct 2003; May 2004; Feb 2005; March 2006
- 19 signatories (late-2003) => 155 signatories (early-2006)

Berlin4 overview (2)

- March 2006 meeting aim:
Visions of new forms of scholarly communications will be presented as well as first concrete experiences. Specific attention will be given to the issues of Open Access in developing countries.
- Policy; cultural heritage; developing countries
- Presentations:
<http://berlin4.aei.mpg.de/presentations.html>
 - See especially Mehlhorn (Berlin Declaration overview); Schutz (Berlin 4 meeting summary)
- Promise indeed turning into Practice
- Working groups established
 - Infrastructure – Jürgen Renn (MPG)
 - Scientific Paradigm – Rick Luce (LANL)
- Berlin 5 in Padua (March 2007)



For interest/information

Gloss

- CHELSA – Committee for Higher Education Libraries in South Africa
- CODATA - Committee on Data for Science and Technology
- COSALC – Coalition of South African Library Consortia
- CSIR – Council for Scientific and Industrial Research
- HSRC – Human Sciences Research Council
- ICSU – Int´l Council of Scientific Unions /Int´l Council for Science
- NRF – National Research Foundation (SA)
- SASLI – South African Site Licensing Initiative
- OSI – Open Society Institute
- SIVULILE – not acronym



- | | | | |
|----------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| 1 Border Technikon | 10 Raad Afrikaans University | 19 University of Cape Town | 28 University of Stellenbosch |
| 2 Cape Technikon | 11 Rhodes University | 20 University of Durban-Westville | 29 University of the Transkei |
| 3 Durban Institute of Technology | 12 Technikon Free State | 21 University of Fort Hare | 30 University of Venda |
| 4 Eastern Cape Technikon | 13 Technikon Northern Gauteng | 22 University of the Free State | 31 University of the Western Cape |
| 5 Mangosuthu Technikon | 14 Technikon North West | 23 University of Natal | 32 University of the Witwatersrand |
| 6 MEDUNSA | 15 Technikon Pretoria | 24 University of the North | 33 University of Zululand |
| 7 Peainsala Technikon | 16 Technikon South Africa | 25 University of the North West | 34 Vaal Triangle Technikon |
| 8 Port Elizabeth Technikon | 17 Technikon Witwatersrand | 26 University of Port Elizabeth | 35 Vista University |
| 9 Potchefstroom University | 18 UNISA | 27 University of Pretoria | |



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Tracking OA

- How to remain updated?
- Peter Suber's blog
<http://www.earlham.edu/~peters/fos/fosblog.html>

Thank you

Jennifer A. De Beer

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