



Investigation & implementation of a research portal for South Africa

**Heila Pienaar: University of Pretoria (UP) &
Martie van Deventer: Council for Scientific & Industrial
Research (CSIR)**

Internet Librarian International: London 10 October 2005



Copyright @ CSIR 2005 www.csir.co.za



Roadmap

- Rationale – background and context
- Strategy – framework for delivery
- Resources – UP Portal



Introduction

- Global connectivity, including the Internet and high performance computing, has resulted in the eResearch paradigm ... also in Africa
- Knowledge Era created improved opportunities for researchers to interact with their global counterparts.



Introduction cont

- SA's many diverse needs and past disparities require a new look at the use of available research infrastructure funding.
- Confluence of these important streams of development makes an effective, unifying research portal a necessity.



Investigation

SA Research Information Services project: 2004

- Project initiated jointly by the Council for Scientific and Industrial Research (CSIR) and the University of Pretoria (UP) and funded by the Ford Foundation
- Team members representative of the university community, the Science Councils as well as the SA site licensing initiative

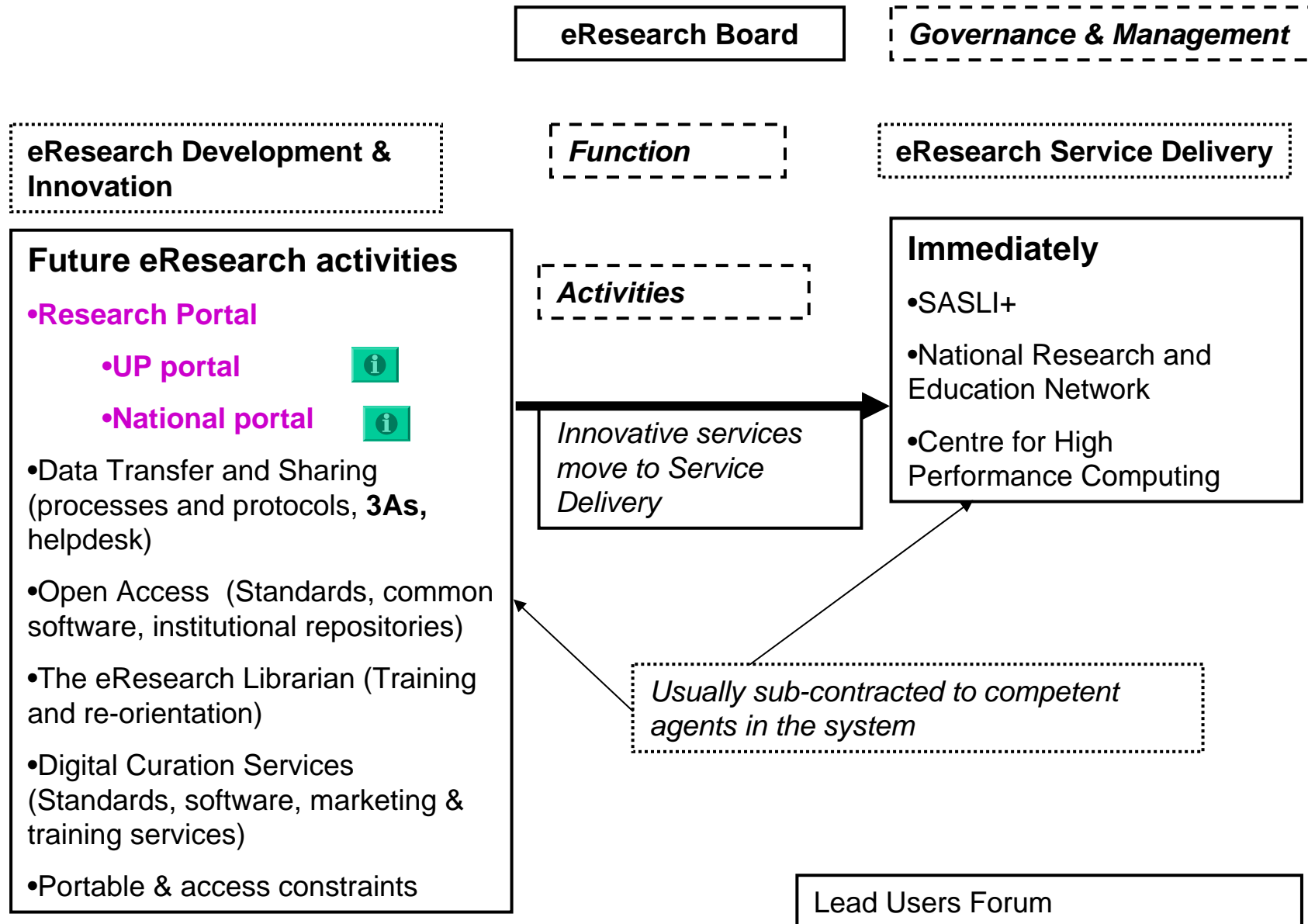


SA Investigation

- Team interacted effectively with many stakeholders and role models (nationally and internationally)
- Scope broader than the research portal – focus on support of eScience / eResearch
- This presentation – only the portal as interface



eResearch Support Service for SA

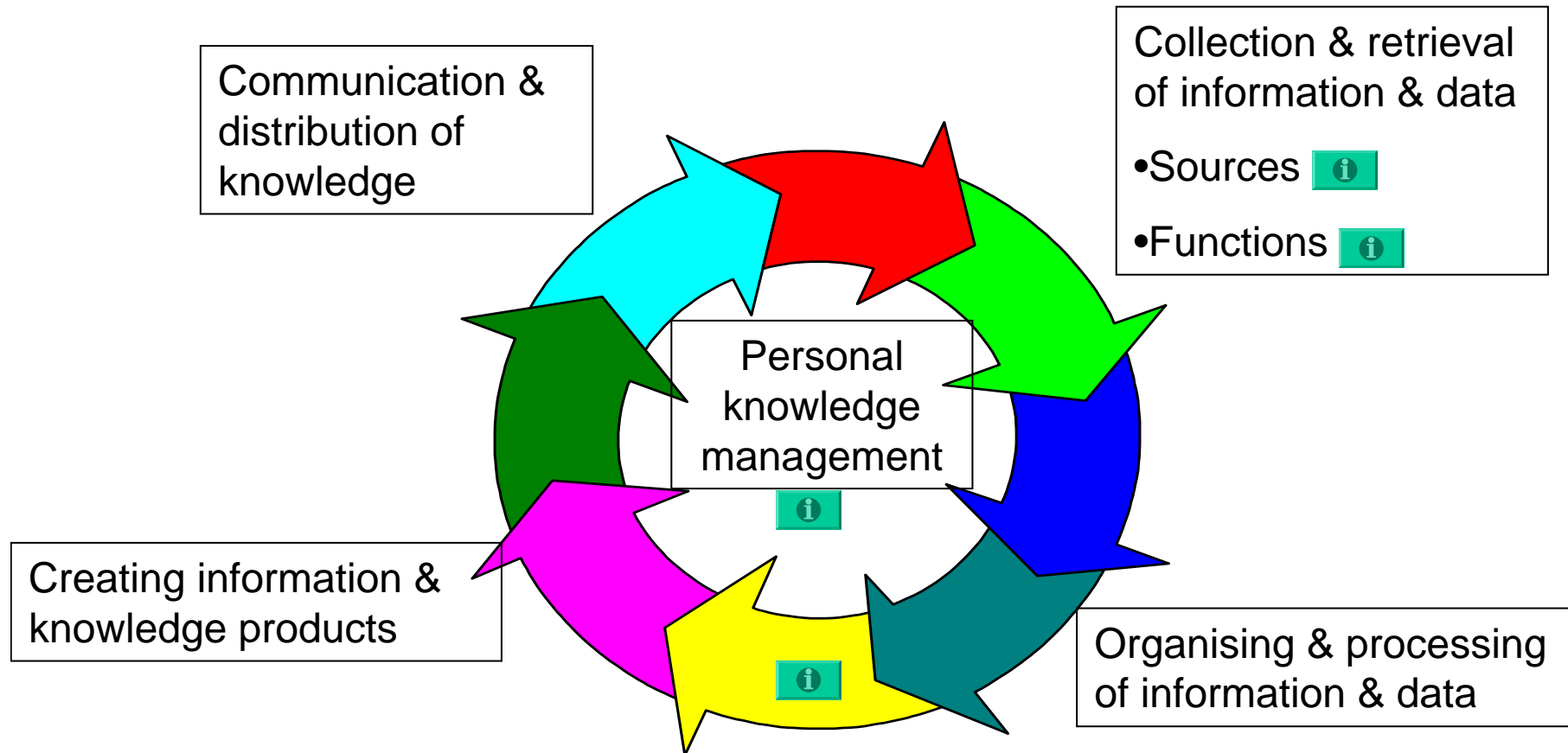


UP Portal: Interviews with UP academics

- The development of this portal played a role in the idea of a SA research portal as the delivery mechanism for services to SA researchers
- Interviews: eight senior academics
- Time frame: 15 Aug - 28 Sep **2000**
- Subject fields: Engineering; Zoology; Accounting; Biology; Languages; Psychology; Physics; Archeology
- Interview structure:
 - identification of information needs;
 - academics work through prototype Portal on Web;
 - formal evaluation of the prototype Portal



Personal academic knowledge management: needs



UP Requirements: personal management of academic information & knowledge

- High levels of functionality and integration are needed - a seamless interface.
- Include advanced personalisation and customisation
- Portal must support both the teaching and research roles of academics



UP Requirements: personal collection & retrieval of information – information sources

- Information sources: e-journals, e-articles, e-reserves, e-archives, databases, e-books, e-dissertations, library catalogues, UP research databases.
- Personal sources: subject experts and information specialists



UP Requirements: personal collection & retrieval of information – functions

- Web search engines,
- Global search function,
- Listservers, chat rooms, e-mail,
- Adding of urls,
- Interface with document delivery and inter library loan systems.
- Ability to evaluate and add information sources to the portal



UP Requirements: processing, creating & communication of data, information & knowledge products

- Indexing tools
- MS tools
- Support e-publishing
- Virtual conferences
- Web teaching: virtual classrooms, demonstrations and lectures
- Virtual work space for research projects



Working portal at UP

Back | Search | Favorites | Media | Go | Links

Address: <http://infoportal.up.ac.za/upportal/app/template/Home.vm>

UP Portal → LOGIN

E-mail
Please login [here](#) to view your email.

Micro Databases
Micro Databases is an application which was developed to assist in the management and sharing of small collections of data. It allows users to create an online database, manage it's data and to share the data with other users. [login Here](#) to join Micro Databases!

Electronic Publishing
Use *Electronic Publishing* to publish your *thesis or dissertation* online or to view work that has already been published online.
[Login here](#) to use *Electronic Publishing*.

Feedback
We Listen!
Feedback is an important part of improving your Portal experience. Please let us know what you think [here](#)

Lecturers Online
Lecturers Online provides you with all the information you need to manage your courses online.

Virtual Groups
Virtual Groups provide users of the Portal with the opportunity to create online groups and to collaborate with their peers through a simple to user web interface.

Virtual Groups News
Virtual Groups messages for this week
[Login Here!](#)

Virtual Groups Calendar
Your upcoming Virtual Groups events for this month:
[Login Here!](#)

Internet Bookmarks
[login here](#)

Search Electronic Resources Portlet
Search The Internet
[Google](#)
[Yahoo](#)
[AltaVista](#)

Search UP
[Search the UP Website](#)
[Search Library Catalog \(UPExplore\)](#)
[Login Here](#)

Search Magnet

New Electronic Resources
A list of the Electronic Resources most recently added to your Favourite Subjects.

Local intranet

UP Home UP Portal

[Customize my UP Portal](#)
[Easy Portal Editor](#)
[Logout](#)

UP Portal → InfoPortal **Dr Heila Pienaar**
13 July 2005 10:07

Library Portlet

Links to general Academic Information services. [Edit](#)

Library (Academic Information Service) home page
The home page of UP's library

Your information specialist
List of information specialists according to subject area

Ask a librarian
Digital reference service

Electronic interlending
Manual for requesting documents online through interlending

Virtual Groups

Virtual Groups provide users of the Portal with the opportunity to create online groups and to collaborate with their peers through a simple to user web interface.

Virtual Groups

Virtual Groups News

Virtual Groups messages for this week

[Opleidingsmateriaal van ander Universiteite](#)

[New Document Revision: Notule van Verspreide Stelsels Prioriteite Komitee 14 Junie 2005 .doc](#)

[Notule van Verspreide Stelsels Prioriteite Komitee verg. van 14 Junie 2005](#)

[RE: Notule van Verspreide Stelsels Prioriteite Komitee verg. van 14 Junie 2005](#)

[New Document Revision: Agenda Verspreide stelsels 12-07-05.doc](#)

[Agenda](#)

[Agenda](#)

[RE: Agenda](#)

[Vergadering 2 Augustus 2005 :9:00-10:00 Komiteekamer](#)

Virtual Groups Calendar

Your upcoming Virtual Groups events for this month:
There are no events posted for this month.

Search Electronic Resources Portlet

Search The Internet

[Google](#)
[Yahoo](#)
[AltaVista](#)

Search UP

[Search the UP Website](#)
[Search Library Catalog \(UPEXplore\)](#)

Resource Type
 ▾

Search Criteria

Search Magnet

Search Criteria

Contains commands for working with the selected items.

Internet Bookmarks

Add | Manage

Visit the Electronic Resources Application for a full list of bookmarks...

- Heilas Webindex
Heilas cv
Design experiments
KM:conceptual shift
Infoportal tutorial
Caught in between weblog

- MIT's Dspace
DSpace artikel
Public knowledge project
The Ship that Sailed to Mars
Geegaw weblog
E-informationtrends presentation
AIS web page
Virtual communities
heilasinfoblog
Blogger (heilasinfoblog; heilainfo)

UP digital Collections

UP Greenstone Digital Collections

ArchUP digital collection
Owner:Department of Architecture

Build your own digital collection with the Greenstone Software: www.greenstone.org

Do you have a digital collection that should be on this list? Click here!

UP Library Digital Collections

Van Warmelo Collection
A collection of photographs and documents of the 19th century cultural anthropologist, Dr. van Warmelo.

Performance Management

This portlet provides users of the Portal the opportunity to complete performance management online. Perform Management

Students Online Services

Student Online Services provides you with all the information you need for your studies. Go to Students Online Services

Lecturers Online

A list of the Electronic Resources most recently added to your Favourite Subjects.

No new Electronic Resources

Electronic Resources

The Electronic resources portlet provides access to an electronic library.

Electronic resources

Browse By All Resource Types

- Journals
Databases
Web sites
Conferences
E-books
Courses

Browse By All Subjects

- E-Learning
Information Science

My Electronic Resource Bookmarks

Requirements: SA research portal

- Must offer the researcher (irrespective of the mother institution) access to:
 - A single, user-friendly, access point to a family of repositories for data, digital objects and publications that would act, inter alia, as a record of research outputs.
 - Easy communication with colleagues and other interested researchers
 - Online content, including
 - A standard suite of online commercial information resources, paid for nationally
 - Other resources that are available without payment
 - Commercially published resources, in addition to the above, to which the researcher's institution subscribes
 - A pay-per-view facility for any other resources
 - Assistance in finding, accessing, contributing to and using databases that are needed for research



SA Requirements: functionality

- A global search engine that can search simultaneously all those sources that are accessible to a particular researcher
- 'Push' of references to published information – Commercial and Open Access according to individual profiles
- Virtual Communities of Practice/Curiosity
- Assistance in submitting large research databases/data streams to SA National Research Network for transmission to colleagues and co-workers anywhere in the world, and in receiving such databases/streams
- Online research support tools, for data and information/reference management



SA research portal characteristics

Generic portal characteristics

- Authentication & customisation
- Access to scholarly communication results (eg articles, theses, blogs)
- Research data / data curation /metadata – national digital repository(ies)
- Support of research communication & collaboration (eg virtual groups)
- Research administration functions including funding opportunities



SA research portal characteristics

Specific characteristics of THIS portal

- Micro-payment (Pay per view) option
- eTraining/eLearning to obtain full functionality
- Global search engine (eg federated search engine & link resolver)
- Online research tools eg models, databases and personal information management
- Personal research sources (human)



Implementation of SA research portal

- Build on experience with portal development & working portal at UP
- National ownership & funding – must be finalised
- Sub-contracting to consortia?
- Identification & the active marketing of national eResearch initiatives
- Phases of implementation must be decided
- Skills development



Lessons learnt

- Researcher needs similar to UK
- Integration – difficult to conceptualise
- Ownership & championship roles are required at the relevant strategic level
- Managing the interaction with IT departments (ownership issue)
- Perceptions on librarian-side of the context
- Rapid development of technology (eg big advantage of now having access to U-Portal)
- Insist upon open standards and use Open Source whenever possible



In conclusion

- We are at the start of the journey but we are not alone!
- Confirmation that researcher needs and the emerging solutions are similar in UK and SA is very encouraging!
- Looking forward to finding opportunities for cooperation and mutual learning as we make progress.



Bibliography

- Page-Shipp, RJ., Hammes, M., Pienaar, H., Reagon, F., Thomas, G., van Deventer, MJ., Veldsman, V. 2005. *eResearch support services: responding to a challenge facing the South African research and information communities*. SA Journal of Information Management, December 2005, 7(4) <http://www.sajim.co.za>
- Pienaar, H. 2003. *Design and development of an academic portal*. Libri, June 2003, 53(2): 118-129.
- Sergeant, D. M., Andrews, S., Farquhar, A. [2004?]. Embedding a VRE in an Institutional Environment (EVIE) & Workpackage 2: User Requirements Analysis User Requirements Analysis Report. http://www.leeds.ac.uk/evie/workpackages/wp2/evieWP2_UserRequirementsAnalysis_v1_0.pdf

