Investigation & implementation of a research portal for South Africa

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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.
• 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.
• 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

**Future eResearch activities**

- Research Portal
  - UP portal
  - National portal
- Data Transfer and Sharing (processes and protocols, 3As, helpdesk)
- Open Access (Standards, common software, institutional repositories)
- The eResearch Librarian (Training and re-orientation)
- Digital Curation Services (Standards, software, marketing & training services)
- Portable & access constraints

**Immediately**

- SASLI+
- National Research and Education Network
- Centre for High Performance Computing

**Activities**

- Innovative services move to Service Delivery

**Function**

- Governance & Management
- eResearch Board

**eResearch Service Delivery**

- Lead Users Forum

- Usually sub-contracted to competent agents in the system
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

- Communication & distribution of knowledge
- Collection & retrieval of information & data
  - Sources
  - Functions
- Creating information & knowledge products
- Organising & processing of information & data

UP academic portal
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
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 use 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.
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.

Performance 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
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 databasesstreams
- 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
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

