Development of a Library 2.0 service model for an African library
Paper for the IFLA information technology section
Theme: Second life for libraries

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Paper:

The University of Pretoria (http://www.up.ac.za/) is one of the largest residential universities in South Africa with 38 389 students (28 206 undergraduates and 10 183 postgraduates). The Library received 2 094 231 visits in 2006 with 214 911 visits to the Main Library during the busiest month and 13 096 during the busiest day (6 March 2006).

The academic library (http://www.ais.up.ac.za/) of the University of Pretoria is committed to render a client-focused service to academics and students. In order to enable us to do this a system of faculty libraries were developed with dedicated information specialists or subject librarians. In 2006 an e-Information strategy was formulated to make optimum use of new technologies to support this client-centered approach. One of the key objectives of the e-Information strategy is the adjustment of the Library's structure, business processes, skills and facilities to support the development of e-products and e-services. During 2006 the Library developed a new structure with the support of organisation development consultants. An e-Service unit was created that is responsible for leveraging the e-Information strategy across the Library.

Variables that influence the role of academic libraries are global library digitisation projects, the impact of e-Research (e-Science or Cyber infrastructure), the needs of the Net Generation student and the possibilities created by Web / Library 2.0 technologies.

Web 2.0, a phrase coined by O'Reilly Media in 2004, refers to a perceived or proposed second generation of Web-based services—such as social networking sites, wikis, communication tools, and folksonomies—that emphasize online collaboration and sharing among users (http://en.wikipedia.org/wiki/Web_2.0). Library 2.0 is a loosely defined model for a modernized form of library service that reflects a transition within the library world in the way that services are delivered to users. With Library 2.0 library services are constantly updated and reevaluated to best serve library users. Library 2.0 also attempts to harness the library user in the design and implementation of library services by encouraging feedback and participation. Proponents of this concept expect that ultimately the Library 2.0 model for service will replace traditional, one-directional service offerings that have characterized libraries for centuries (http://en.wikipedia.org/wiki/Library_2.0).

The Library 2.0 meme map (http://en.wikipedia.org/wiki/Image:L2-meme2.gif#file) is used as framework for our paper. We added one new subject i.e. Enable e-Research. The following subjects will be discussed:

- Enable e-Research
- Creation of an emerging technology committee
- Integration with e-Learning
- Federated search
- Patron 2.0 = from content consumer to content creator
- Use of Web 2.0 apps and services

Enable e-Research

The e-Research paradigm is a composite of two main trends:

- The ability to transfer large volumes of data, to use and analyse this data for different purposes and to share computation capacity between remotely situated researchers
- The need to make better use of expensively created scientific databases by the active management and appraisal of data over the life cycle of scholarly and scientific interest is the basis of a new field of endeavour called digital curation (Page-Shipp et al, 2005 http://www.sajim.co.za)

The South African national research and development strategy was published in 2002. It invited all role players in the national innovation system to rethink their role and to find opportunities to face the challenge of increasing economic growth and improve the quality of life for all South Africans. It was clear that the strategy called for a renewal in the information services sector. It was anticipated that the strategy would require a level of information service support that was not available at any individual institution. To handle this challenge the South African Research Information Services (SARIS) project team was established.

The final proposal of this project team envisages a sophisticated and technologically advanced e-Research support service that can manage, deliver, stimulate and reward. The proposal makes maximum use of existing entities, rather than creating new ones. It incorporates clear roles and a set of responsibilities that include:

- stimulating innovation and identifying appropriate innovation projects
- obtaining project funding
- feeding successfully completed projects into the service delivery component and
- accountability to the South African research community (Page-Shipp et al, 2005 http://www.sajim.co.za)

Virtual research environments (VREs) comprise digital infrastructure and services which enable research to take place within the virtual multi-disciplinary and multi-organization partnership context. The VRE concept helps to broaden the popular definition of e-Science from grid-based distributed computing for scientists with huge amounts of data to the development of online tools, content, and middleware within a coherent framework for all disciplines and all types of research (Fraser, 2005 http://www.ariadne.ac.uk/issue44/fraser/). The University of Pretoria (UP) and the

CSIR are busy with an investigation into the viability and expectations for the development of a VRE for use by researchers of both institutions. This is done by using a co-operative UP/CSIR research area i.e. Malaria as a case study to identify the user needs and expectations. The primary output of this endeavour will be a conceptual model that could be used to develop a Malaria VRE. This proposed VRE will include the management of the data life cycle a.k.a. data curation.

Creation of an emerging technology committee

A Library e-Service steering committee was created in 2006 to co-ordinate the Library's e-Activities in support of UP research, teaching and learning. The terms of reference of the committee are:

- To co-ordinate the implementation of the Library e-Information strategy
- To co-ordinate the Library's e-Services, e-Products and e-Initiatives on a strategic level
- To create and align Library e-Steering committees e.g. Web steering committee, Library System steering committee
- To co-ordinate the different e-Budget requests and spending e.g. UP IT budget, Library IT budget, Library strategic plan
- To create an e-Service unit (organisational redesign)
- To align Library IT policies and architecture with UP IT policies and architecture
- To create and maintain the necessary personal networks with UP, national, regional and international stakeholders, opinion leaders and experts
- To be aware of and to implement new relevant IT trends and e-Applications
- To communicate and market new e-Trends and e-Applications

Integration with e-Learning environment

The co-operation between the Library and the University's Department of Education Innovation is excellent. The Library's information specialists or subject librarians develop web reference pages for specific academic modules that are hosted on the Learning Management System of the University a.k.a. clickUP. These reference pages are an integral part of clickUP and link to relevant full-text articles and book chapters.

Federated search

We use Google Scholar as our federated search engine (also to search across subscription e-resources), and ScholarSFX (available free of charge to eIFL countries) as the full text link resolver. We are not sure whether a conventional federated solution will solve our problems as there are also disadvantages to using federated search engines, e.g. e-resources with limited access being occupied by unnecessary searches running through that e-resource/database. Another reason is that students who want to conduct searches within specific databases are happy to do so as some of the functionalities in individual databases are lost when searching the database via a federated search engine. We rather wanted to target students who avoid the library resources because it is so difficult to find their way through the maze of hundreds of databases, and who are not aware of the resources. Since our clients use Google, and want and prefer a Google interface, we decided to find ways on how to utilise Google

Scholar to the advantage of ourselves and our clients. Through Google Scholar we would like to make our clients more aware of the valuable resources to which we subscribe. We are of the opinion that Google Scholar and Scholar SFX offer many of the advantages a conventional federated search product and link resolver would have offered (http://fedsearch.blogspot.com/)

Patron 2.0 – from content consumer to content creator

Currently our best example of "consumer as content creator" is our academics' and students' involvement with collections on the University's digital research repository, UPSpace. We decided to use the open source software DSpace after an intensive evaluation of available software. The Library is responsible for initiating, managing and marketing the repository. This is a very broad-based repository that host the following collections:

- Scholarly research material
- Historical (archival) material
- Popular research material
- Conference proceedings and presentations
- Speeches
- Collections donated (https://www.up.ac.za/dspace/)

Use of Web 2.0 applications and services

Although the library staff have used wikis and blogs for library projects (http://upspace.wikispaces.com/; http://aisebooks.blogspot.com/; http://fedsearch.blogspot.com/) we still have some way to go to use it as as tools to encourage user participation and feedback in the development and maintaining of library services (http://en.wikipedia.org/wiki/Library_2.0). We do of course hold regular client surveys and focus groups to identify user needs and facilitates user feedback.

In conclusion

The Library of the University of Pretoria is well on its way to become a Library 2.0 Library!

Bibliography

Fraser, M. 2005. *Virtual research environments: overview and activity*. Ariadne, July 2005, 44. URL: http://www.ariadne.ac.uk/issue44/fraser/

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

Abstract

The academic library of the University of Pretoria is committed to render a client-focused service to academics and students. In order to enable us to do this a system of faculty libraries were developed with dedicated information specialists or subject librarians. In 2006 an e-Information strategy was formulated to make optimum use of new technologies to support this client-centered approach. Variables that influenced the e-Information strategy are the changing role of academic libraries because of global library digitisation projects, the impact of e-Research (e-Science or Cyber infrastructure), the needs of the Net Generation student and the possibilities created by Web / Library 2.0 technologies.

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The presentation will be illustrated by screen captures from the different projects that have been successfully implemented e.g. the use of Google Scholar and Scholar SFX as a federated or global search engine and UPSpace, the university's institutional research repository.

CV's

Heila Pienaar holds a DPhil in Information Science, as well as Masters Degrees in Computer-Integrated Education and Library Science. She had a varied and interesting career that included being a lecturer at die University of South Africa (Unisa) and doing extensive consultation work. She is currently Assistant Director: eInformation Strategy & Knowledge Management at the library of the University of Pretoria. Her main areas of interest includes the following: Academic Portals, Virtual Research

Environments, e-Research, Knowledge Management, Strategic Management and Information Technology Applications.

Ina Smith holds a Master's Degree in Computer-Integrated Education, as well as an Honours Degree in Library and Information Science. She has started her career as a secondary school teacher in 1992. From 1993 - 2001 she was a cataloguer at the former Pretoria Onderwyskollege, and from 2002 - 2004 an information specialist at the library of the University of Pretoria. Currently she is an E-Application Specialist and the manager of UPSpace, the digital research repository of the University of Pretoria. Her main areas of interest includes the following: Information and Knowledge Management, Institutional Repositories, Archiving and Preservation, Federated Search Engines and Link Resolvers, E-learning (online learning), Instructional Design. She is also responsible for the library web page and manages the implementation of new e-projects in the library.

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