Conference Reports

Victorian Association for Library Automation Inc (VALA) 13th Biennial Conference and Exhibition, Melbourne, February 8-10 2006

This conference provided an opportunity to catch up with developments in information technology, international projects in developing digital libraries, knowledge management projects which have achieved new data models and provide examples of constructing new information delivery and access systems, and new ideas about human/computer interaction. It has probably been a decade since a library and information conference has featured such an interesting range of developments. Developments in information-sharing spaces and tools have been relatively fast in the past two years, which has seen the maturation of storage services such as Flickr, blogs, wikis, social communities such as del.icio.us, and 'mashes' using a range of web services such as www.housingmaps.com and Chicago crime. These developments challenge libraries to move beyond looking their current collections and web pages.

The most interesting themes that echoed through the conference were:

- projects based on 'good enough' rather than 100% approaches, such as the Indian Universal Digital Library, which has produced over 900 million pages with remarkably limited resources
- relatively light and modularised applications with distributed data, such as The European Library, and RSS to enable access to blogs for staff development at the University of Southern Queensland
- knowledge management utilised to create new information storage, delivery and publishing, such as the Fusion technology project described by Professor Jane Hunter which uses, among other applications, OWL, an inference engine to produce high level metadata from low level metadata, an automated hypothesis testing system and a test management system
- the need for digital resources to be available in forms which enable use and re-use in new contexts (no mention of Z39.50; web services are now the key)
- a focus on looking at user needs rather than librarian-driven construction of resource discovery data and services, and
- a very interesting emphasis on development of digital resources which are published on demand in print form, to meet user need.

Some sessions were disappointing, particularly those which just described one project without looking at the implications for broader library and information services. Overall, however, the presentations were stimulating. The highlights for me were the presentations of Jane Hunter (University of Queensland), Anna Raunik (State Library of Queensland and VALA Scholar),

Professor Balakrishnan (Indian Institute of Science), Sandy Payette (Cornell University) and Daniel Clancy (Google Print Project). Lloyd Sokvitne (State Library of Tasmania) was notable for telling us to stop recording the information we like as librarians and to start thinking and researching what people really want (do people really want collation notes?).

Hunter's presentation was on scientific models – a user-oriented approach to integration of scientific data and digital libraries. This paper demonstrated the implementation of these new technologies in a science environment, re-using data through alternative tools and data models. The project, applied in a research project to develop better fuel cells, was complex due to the very large data sets, scientific publishing requirements and full integration with all aspects of research management. Her team developed a metadata schema, metadata repository, rules to infer high level descriptions from the data, interfaces to manage the inference engine, a new tool for hypothesis testing of the data and a very complex publishing module which enables results of hypotheses to be published selectively. It uses the ABC ontology model, MPEG3 for data and provides outputs in a wide variety of ways, including visual forms. The data is very complex, and is stored using OWL, OWL-S and other protocols. It was a marvellous example of using RDF, ontologies and the semantic web in a large science research project involving industry and academia.

Anna Raunik summarised the findings of her travelling scholarship from VALA, where she investigated the use of webcasting and webconferencing in public libraries, museums and projects in the United Kingdom and the United States. Resource discovery for webcasts is highly variable – the Library of Congress with approximately 700 webcasts does not include them in their catalogue. The services are focused on the business of the organisations: for example the Tate and Natural History Museum webcasts focus on adult education. Webconferencing is been used to support access to local government in the United Kingdom, with low-cost shared facilities and local government staff indexing and filming. Some libraries have interactive sessions with users, staff development sessions and encourage participation. Different funding models are used – with no significant evaluation available yet.

Sandy Payette addressed the topic of choosing technology that can evolve to meet user needs. She talked about the new use of technology by 10 and 20 year olds for play and social interaction. She described early signs of change: grid technology in science (for example the US National Virtual Observatory) and textual hyperlinking in the humanities (for example the University of Virginia Valley of the Shadows). The most important technology trends are service-oriented architecture: Web 2.0 and semantic web services, not applications, are the key, with emphasis on architecture to support participation, remix/transformation of data sources and harnessing collective or collaborative intelligence. Goals for the 'new order' are:

- creation and publication of new forms of information units

- services to better enable the processes of research and scholarship
- knowledge environments that capture semantic and factual relationships between information units
- promotion of reuse and contextualisation, and
- support and assist of collaborative developments.

Projects stepping towards the new environment include the Fedora repository projects, the Pathways project using SOA, OWL and OWL-S, and NDSL. Ontology use is essential and challenges include reducing the entry cost barrier, service matching, security and trust and preservation.

Professor Balakrishnan described the Indian Virtual Library which has developed over 90 million pages. The project, based on a distributed network with lightweight protocols, uses Greenstone as the search interface. Twenty-one libraries and over 200 locations are participating, and extremely sophisticated software has been developed to translate Indian languages, storing the information as ASCII. A summariser has been developed, again using very sophisticated, well-tested algorithms developed by PhD students. Scanning costs are around 50 Australian cents per book, cheaper than the cost of selection of books for digitisation undertaken by other libraries. A print-on-demand solution is also available. Out of copyright material is copied. Professor Balakrishnan is optimistic about having a model for out of print books based on payments to authors. The translation interfaces are enormously impressive.

Daniel Clancy, Chief Engineer, Google Print Project was keynote speaker on the final day. He has been responsible for the Google publishing program, which works with publishers to make works in copyright available through display of sample pages, and the Google library program which is working with five major research libraries (including Oxford and the Library of Congress) to produce a massive digital archive. He emphasised that around 95% of current publications are in electronic form at some stage, with around 15% in copyright, 20% in the public domain and 65% out of print. Google's software enables quick scanning with rectification for book curve, quality of print and recognition for OCR conversion, aiming at 100% accuracy (in the longer term). Clancy saw Google as providing basic book search and ubiquitous access. He also saw that libraries would have key roles supporting their local communities and scholarship, and supplying access to the community to works in copyright.

All in all, a very valuable and stimulating conference.

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Library of the 21st Century Symposium, State Library of Victoria, 23 February 2006

Two hundred people at this one-day symposium held at the State Library of Victoria heard a range of papers from key Australian and international decision-makers, commentators and industry leaders, addressing the question posed in the introductory session by Sam Lipski, President of the Library Board of Victoria: what is the library of the twenty-first century? Those who attended were treated to a range of papers covering a variety of issues grouped into four themes: libraries and community, libraries and learning, libraries and collaboration, and libraries and the creative economy.

Joel Kotkin, American journalist and academic, gave an account of the rise of cities, the roles of libraries and learning within these communities, and the gradual democratisation of reading, libraries and knowledge. The key issues he urged listeners to consider was how do you husband and use knowledge in the 21st century? Virtuality is coming, in tandem with a 'declustering' trend, away from large to smaller cities in the developed countries, with the opposite occurring in the developing regions. This will create major tensions. Kotkin proposed three scenarios for the future: broader spreading of knowledge, a diverse archipelago of knowledge ranging from 'hot spots' to 'cold' regions doomed to irrelevance, and a future in which libraries and information dissemination may be the critical difference.

Three Australian speakers presented their take on the theme of libraries and learning. Margaret Gardner, Vice-Chancellor of RMIT University, suggested that users make little or no distinction between types of libraries, citing the example of RMIT and its very close proximity to the State Library of Victoria. To accommodate this, further collaboration in new ways needs to happen between libraries. The ability to work in the digital domain is the key: Gardner proposed a 'virtual knowledge precinct' available to the broader public. Vicki Williamson, Pro-Vice-Chancellor at the University of Ballarat, challenged the library profession to change its 'hesitant and cautious culture' to accommodate new demands of the 'digital native' generation. She made a case, based in part on the aging library workforce, for cooperation between libraries and other organisations. Some of this is happening, but not enough. Linda O'Brien, Vice-Principal (Information) at the University of Melbourne, described the implications of e-scholarship for the libraries of the future. E-research is characterised by large datasets which are used by international collaborative teams of researchers and are re-used. These are often discipline-based, and the library has a role to play in their long-term sustainability when the discipline is unable or unwilling to continue their custodianship. However, this raises tensions between the traditional conservation roles of libraries and the need to work collaboratively in partnership with researchers.

The topic of libraries and collaboration was addressed by Mary Jane Stannus (Australian Broadcasting Corporation) and Matthew Liebmann (PricewaterhouseCoopers). Stannus described how new technologies provided new opportunities for broadcasting and journalism. The potential for re-

purposing of archival material is significant. Liebmann proposed that the rise of lifestyle media ('a personalised media experience', in which participation such as the ability to comment and to influence that media is important) was a growth area. The keys are convergence (any time, any place, any device) and interactivity. One example provided was Amazon, which has moved from passive lists of books available, to interaction with its users through invitations to post reviews. Libraries had a role to play, in providing better mediation as a middleman, the key being the library's branding as providing authoritative advice.

The final speaker was the stimulating and challenging Charles Leadbeater, billed as 'author and corporate strategist, UK'. He suggested that libraries are 'stuck' and urgent action is needed. Users are increasingly becoming used to participating, such as through the open source software movement, Wikipedia and eBay, so libraries should become 'a space for self organisation' with strong emphasis on providing tools as well as, or perhaps in preference to, providing services. Libraries have many attributes that should allow them to participate in the creative economy but are currently 'defined by peculiar rituals' and are off-putting and regarded as inaccessible. How can change be made? Limited outcomes will result from reforming traditional models, for example offering new services at new kinds of locations, and from new hybrids, such as services located jointly with other kinds of organisations and from accommodating a more collaborative self-help ethos. More radical changes are needed: new models of highly collaborative and highly peer-to-peer public services based on principles such as users as co-producers and distributed tools, in flat, open, entrepreneurial organisations. There are new roles for professionals, as mediators and guides, with implications for professional training. Libraries need to find new ways to take risks while still retaining their core values and their brand of trust.

Concluding remarks from David Hanna, CEO of the Victorian Government's Innovation Economy Advisory Board, stressed the themes of the symposium: changing contexts, democratisation of knowledge, demand-driven services, clients as participants not passive consumers. In keeping with some of these trends, the State Library of Victoria is podcasting these presentations from its web site: http://www.slv.vic.gov.au/about/pastfuture/future/symposium/.

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