Developments in Access to Art Information

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Abstract

Recent digital developments have dramatically improved access to art information internationally, providing a wealth of resources to people across the world. At the University of Auckland this has impacted teaching methods and the way students and staff are trained in research methods and use of resources. Now that so many useful digital collections and web based resources have been established, what software solutions can we hope to find that will make searching this vast goldmine easy and productive? Many digital resources are hidden in the 'invisible web' so cannot be retrieved using search engines like Google. This article examines the current way the University of Auckland Library provides access to digital resources, and how this may change in the future with the latest developments in software 'portal type' solutions.

Keywords
Portals, thick portals, thin portals, ENCompass, digital resources, digital collections, University of Auckland Library, digital libraries.

Introduction

Previous speakers at this conference have outlined the establishment of digital collections. Each of these new collections has developed into a useful and exciting resource for a wide range of people from many different countries. However in this paper rather than looking at developments of individual collections I wanted to address the question of how we can improve access and delivery to such a wide range of digital art resources for a targeted group of users – in this case the University of Auckland students and staff. To discover how we can improve access we must first examine why this is so important to us, and look at how we currently deliver digital resources to our community.

Digital Resource Delivery at University of Auckland Library 1996-2001

Digital resources are increasingly becoming a core component of the library service as a whole. In 2001 the University spent NZ$4.5 million on digital resources which amounted to 36.5% of the resource budget. Our definition of core digital resources is electronic journals, databases, image collections, websites, and library catalogues. These may be local, national, international, free or fee-based. The University of Auckland community comprises 30,000 students (full and part-time, undergraduate and postgraduate) and 4000 staff. The digital library service is accessible 24 hours a day 7 days a week to these users who have high expectations for consistent delivery, and quality content in a fast paced academic environment.

In 1996 the University Library established a library web site branded 'LEARN' (Library Electronic Academic Resources Network). This was designed as a gateway

for accessing all library resources. In essence there was a directory listing for types of resources, also a subject listing and database A-Z listings. From the moment of its inception the usage of the website rose in leaps and bounds gaining 23.3 million hits in 2001 (see Fig 1.). Fig 2 shows the recently redesigned LEARN homepage (www.auckland.ac.nz/lbr)

But not only was the usage of LEARN growing, the website itself was becoming huge. In 2001 LEARN consisted of approximately 3000 static web pages. The content of the pages was managed by about 20 subject librarians as part of their job, whilst overall development and maintenance was the responsibility of the Digital Services department, who also managed the IP authentication, proxy and Netaccount (in-house authentication system). It was quite obvious that the library service was changing. It was moving from a traditional book based environment requiring the user to physically visit a library location, into an electronic environment being accessed 24 hours a day every day, with an electronic 'ask a librarian' service.

Fig 1
Increased Usage of LEARN Website

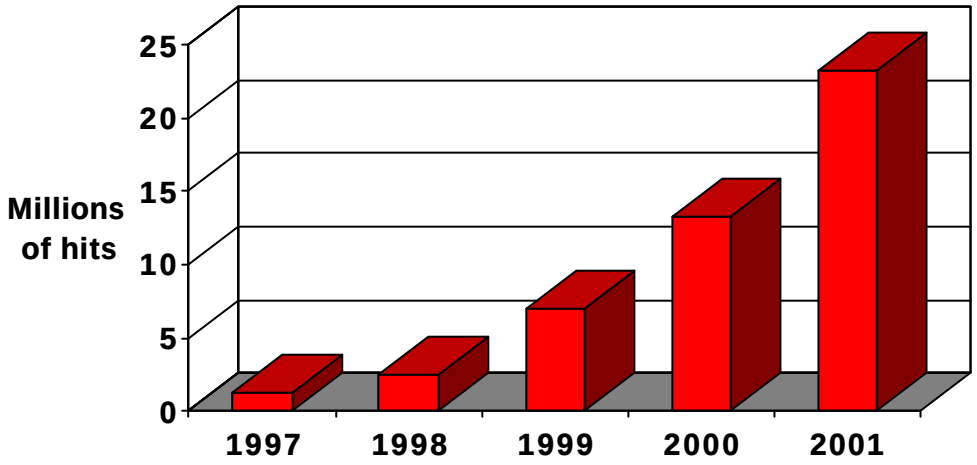
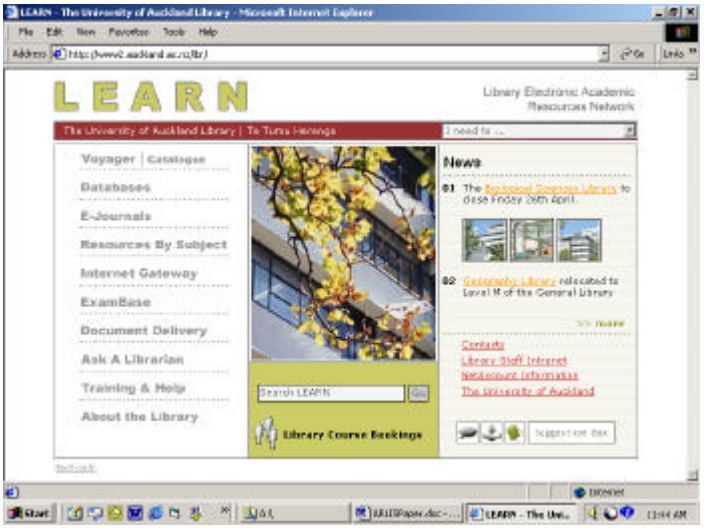


Fig 2
Redeveloped LEARN website www.auckland.ac.nz/lbr



The Way Forward 2002 -
By the end of 2001 the Digital Services Department had made the decision to search for a smarter way for users to access the wide range of digital resources, and a smarter way for staff to manage the resources. As part of its ongoing mission the University Library is constantly seeking to maintain a high quality service and looking for improvement. Five years after its inception in 1996 LEARN received a major face-lift to give a more modern 'look and feel' to the interface, though the basics remained the same. Students and staff continue to receive regular tutorials from library staff on content and navigation of LEARN as a whole, as well as sessions on individual digital resources and collections.

However, despite the fact that LEARN is well organised and managed the fact that users still require a basic understanding of its content and purpose, and need to master searching in many different interfaces to get good results cannot be ignored. In thinking about how we wanted to improve we came up with three points to consider:

- Increasing access to all resources (navigation)
- Improving searching techniques for users
- Better management of resources by staff

The present situation on LEARN is that to a certain extent users must know a resource exists. They can browse under Resources by Subject e.g. Art and would then see a list of resources recommended by librarians e.g. websites, databases, e-journals, digital collections, and local databases. But once they reach this point, or if they have accessed the resource direct they then go into the native search screen of the resource or the resource direct e.g. website. When doing research multiple searches of individual collections in their own interfaces need to be executed in order to achieve a good set of results. Fig 3 illustrates this.

Our vision for the future would be similar to Fig 4. A single search and navigation interface sits between the user and the resources. This enables one search to be executed simultaneously to all selected resources, with results being listed by resource or merged by relevance.

Fig 3
Current Search Method

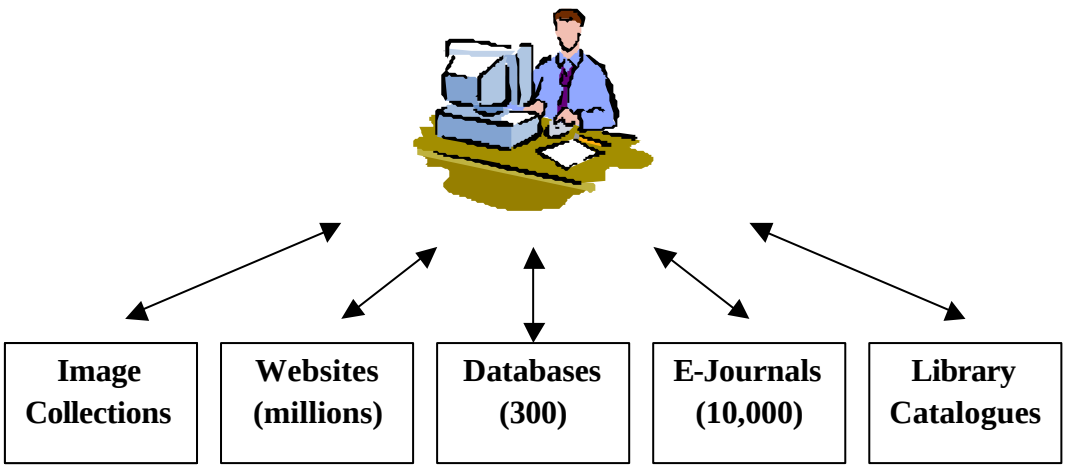
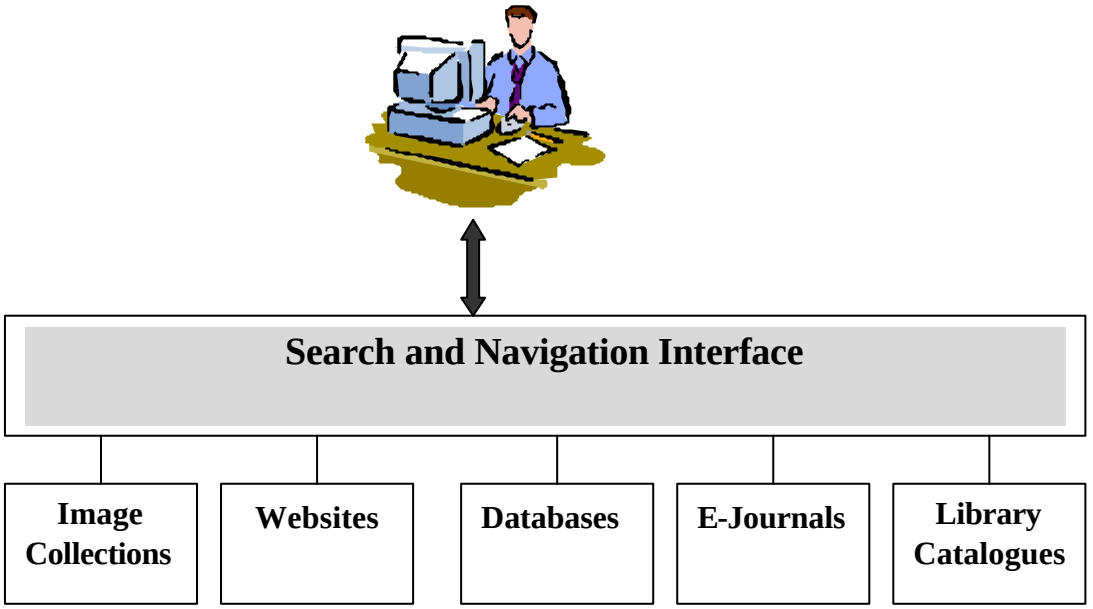


Fig 4
Future Search Method



Roy Tennant[1] (California Digital Library) sums it up very effectively when he says "Users should be able to discover through one search what digital objects are freely available from a variety of collections, rather than having to search each collection individually". He also comments in another article[2] "You know you want it. Or you know someone who does. One search box and a button to search a variety of sources, with results collated for easy review. Go ahead, give in- after all, isn't it true that only librarians like to search? Everyone else likes to *find*."

When users look for a speedy way to access resources some may turn to a popular search engine such as Google instead of the LEARN interface believing this gives them a good result. Google does indeed search excellently across Internet sites but crucial things our users are missing out on are:

- Access to databases and e-journals the University has subscribed to
- Content within some digital collections e.g. journal articles in databases, images in picture collections. Content is usually not accessible by search engines being hidden in what is commonly referred to as the 'invisible web'.
- Sophisticated searching through the native interfaces of each resource

However the simple and speedy 'Google' type model does seem a popular search interface for millions of users, partly because of the simplicity of the interface and when matched with relevant clear results from many disparate resources it seems to be taking the lead among search engines [3].

The Portal Model and Challenges
We came to the conclusion that we are therefore searching for a 'Portal' type model. Because the concept is relatively new there does not seem to be an adequate name to

call this thing we are looking for, so for the time being I will use Andy Powell's (UKOLN) description[4]. Our current method therefore is a 'thin portal' i.e. a single point of access for consolidating information from disparate sources. What we require is a 'thick portal' which does the above and also offers a single search interface across multiple data types and databases. The 'thick portal' therefore offers a new concept in data navigation, searching and managing.

The benefits for our users would be:

- Don't need knowledge of resources before searching
- Access resources they didn't know existed
- Single search interface to access all resources
- Seamless searching across collections and data sources
- Single set of results (duplicate results eliminated)
- Ability to personalise search interface to suit subject needs
- Option to search a single resource in native interface if required

The benefits for our staff would be:

- More efficient management of resources
- Dynamic delivery
- Reduction in web page maintenance
- Single description creation
- Rights management
- Authentication

The immediate challenge for us is in finding software that can match our requirements, and is stable and robust. From mid 2001 we have been looking at products in the market place. Library portal solution packages that can be implemented separately from integrated library management systems include MetaLib from ExLibris, ZPortal from Fretwell-Downing and EnCompass from Endeavor Information Systems. These look promising but are still under development. In the words of Howard Besser[5] "the function of searching across collections is a dream frequently discussed but seldom realised at a robust level". Endeavor customers that have purchased EnCompass and are assisting with development or utilising it in a test environment are the Getty Research Institute, National Library of New Zealand, State Library of Queensland, Kansas State University, and Cornell University amongst others. These are all institutions with large collections of digital resources. The Getty Research Institute in particular is focused on Art Resources. EnCompass has also developed a digital object management system. Getty, Cornell and the National Library of New Zealand are using this for storage and delivery of locally created objects with multiple metadata types

Our requirements for a software solution are quite a tall order:

- Cross data searching (databases, websites, e-journals, library catalogues)
- Single unified search interface and also ability to go direct to native interfaces
- Simple and advanced searching
- Customisable search and results interfaces
- Personalisation for users

- View results by source or merged by relevance
- Rights management and authentication built in
- Digital object management

Apparently Encompass can deliver all these things – so how? Behind the scenes Encompass utilises multi-protocol searching. It has the ability to consecutively search across Z39.50, http, and XML gateways. This means that you could execute a search on a library catalogue, a web site, a database and an image collection at the same time. Results would show specific items contained in those collections. You are able to select which resources you want to search simultaneously, or search the complete collection. To go back a step you are also able to find out which resources may be relevant to you by the 'Suggest a Resource' search if you are unfamiliar with all the resources. An Oracle database stores repository metadata and digital objects using XML. Multiple metadata schemas are supported (Dublin Core, Encoded Archival Description, Text Encoding Initiative) which means you have the ability to crosswalk and search over all. You define your structure using a basic hierarchy: object-container-collection-repository. By using XSL and XSLT (XML style sheets) information managers can totally customise the appearance and functions of the search and results display interfaces. This also supports personalisation of user interfaces in the 'my library' style.

So having selected from the growing number of 'thick' portal solutions what next? Preparations to migrate from a 'thin' portal system to a 'thick' portal system present the following challenges:

- Training Issues for users:
    - New search concept
    - New method of navigation
    - Customisation 'my library'

- Implementation and maintenance of software
    - Staff training (XML, XSL, XSLT)
    - Staff time (may be more than current system)

- Authentication and Rights Management

During the course of searching for improvement it has become apparent that we as information professionals have several challenges we need to rise to: seek ways to improve access and management to our art resources by innovation; maintain our current awareness of the latest software developments; and to co-operate with each other to achieve interoperability of systems by using common standards (that last one warrants a whole paper in itself!).

Conclusion

To conclude my opinion is that creating digital content is only the first step in improving access to art information, the next logical step is to organise our digital and virtual collections into easily navigable and searchable 'thick' portals. This gives benefits to both the users and managers of information and has the potential to radically improve access and retrieval to disparate sources of information in a similar way to that shown by 'Google'. I anticipate that in the very near future institutions

like ours will stop "dreaming" and will take action by purchasing robust software to deliver our digital dreams.

URL's

LEARN – www.auckland.ac.nz/lbr
ENCompass Demo site: http://207.56.64.66:20005
Getty Institute Demo site: http://archives.getty.edu:2008
Google www.google.com
Endeavor Information Systems ENCompass http://encompass.endinfosys.com/

References

[1]Tennant, Roy. 2001 Different Paths to Interoperability. Library Journal vol 126 no3 (Feb 15 2001) p.118-19

[2]Tennant, Roy. 2001 Cross-Database Search: one-stop shopping. Library Journal vol 126 no 17 (Oct 15 2001) p.29-30

[3]Taylor, Catherine. 2001 Marketing 1000: Doug Edwards. Advertising Age S12 72, no.41 (Oct 8, 2001) p. S12

[4]Powell, Andy. 2001 DNER Architecture. Join–Up Seminar on Linking Technologies, Edinburgh 6 March 2001.
http://www.ukoln.ac.uk/distributed-systems/dner/arch/presentations/dner-arch-joinup

[5]Besser, Howard. 2002 Moving from Isolated Digital Collections to Interoperable Digital Libraries. VALA 2002 Conference Papers
http://www.vala.org.au/vala2002/2002pprs/fri2002.htm