

ELAG 2004 - Interoperability: new challenges and solutions

Library information within the enterprise portal

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Abstract

While librarians have been focusing on the transition from the Library OPAC to the Library Portal, institutions are starting to develop enterprise portals, often using techniques, methodologies and technologies that are unfamiliar to librarians. This brief paper attempts to clarify these issues and create both an enthusiasm and a justification for librarians to participate in, and provide leadership to, enterprise portal projects.

Introduction

A defining moment in the evolution of library automation systems was the development of the Web OPAC. The ability to search a library's catalogue remotely, through an easy-to-use and non-technical interface has opened up the resources of many libraries in a way that could not have been envisaged only 20 years ago.

The second stage in this development has been the extension of this OPAC to allow it to search both remote metadata (primarily through Z39.50) and, more recently, local & remote digital information, allowing primitive 'interoperability' between the library system and these other resources. Librarians and library automation companies have started to call this combination of OPAC and broader discovery capability a 'library portal'.

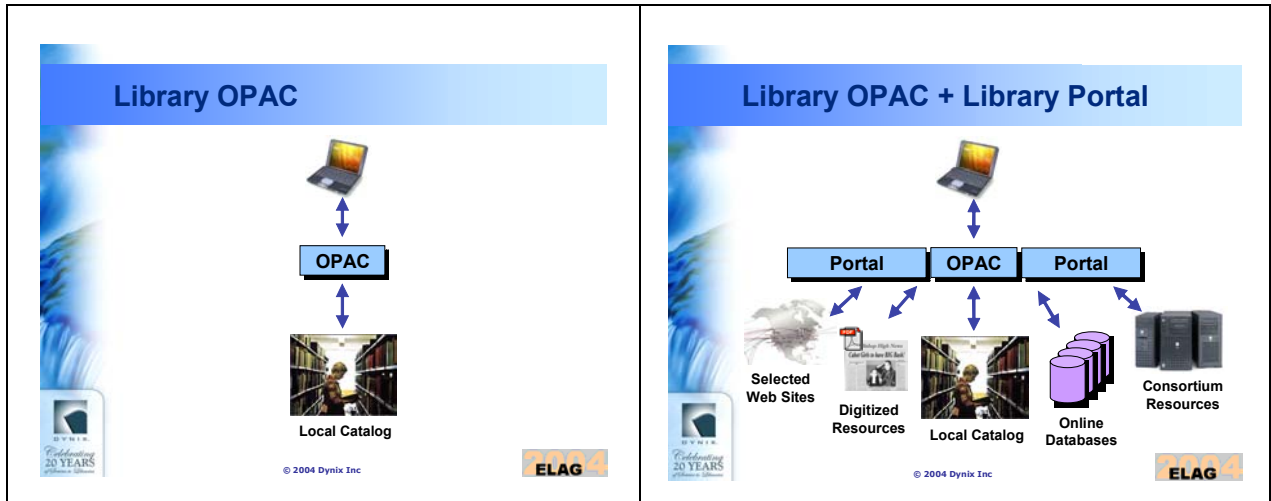
Meanwhile, information technologists, information scientists and web engineers have are using the term 'portal' to embrace a range of concepts and capabilities that are both broader and, in some ways, more prescriptive. Many institutions and enterprises, including universities, businesses and governments, have begun to apply this portal model to the creation of 'enterprise portals'.

This brief paper will attempt to:

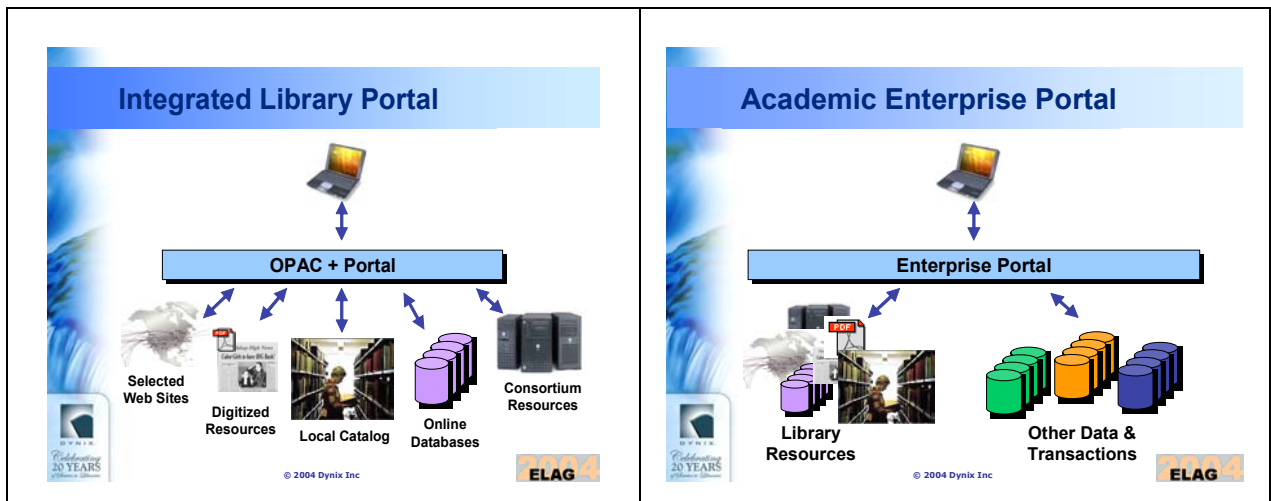
- distinguish between library portals and enterprise portals;
- show that the enterprise portal represents a key technology and a key user experience for the future;
- make librarians concerned that they are not yet at the centre of many enterprise portal initiatives within their own organisations;
- suggest why and how librarians can participate in, and even lead, these projects.

Library Portals, Information Portals and Enterprise Portals

Many librarians and library automation companies use the term 'portal' in quite a narrow sense: to mean software that allows its users to access a wide range of metadata and actual content from a range of sources through a single interface. A UK University recently issued a "Request for Information" on this basis, stating that they were considering the purchase of a 'portal' for the library, and making the specific clarification that this excluded the scope of both their current library web OPAC and the University's enterprise portal that was under development. This presents a very narrow definition of a library portal.



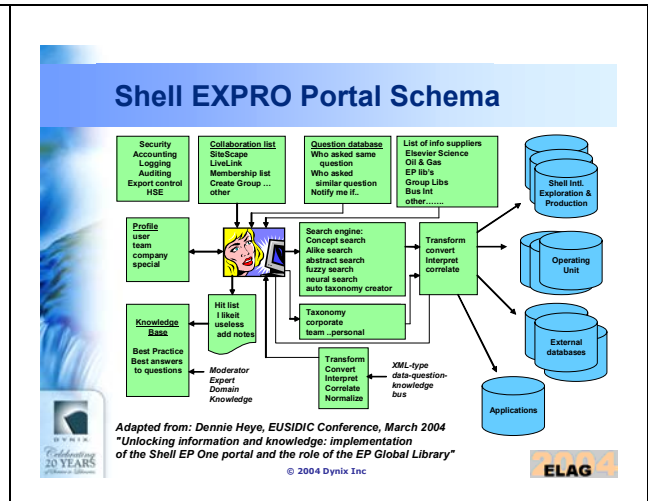
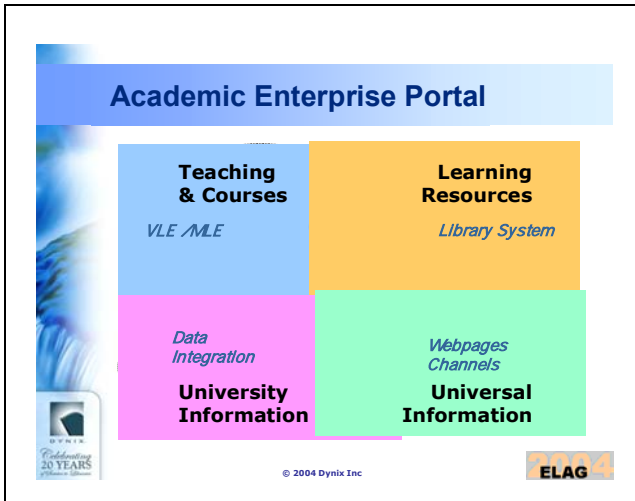
A slightly wider definition would be to include the OPAC within the scope of the portal. Here an 'integrated library portal' might mean something like: "a common interface that allows users to access library-owned resources and library-accessible resources."



Yet in the wider world of information technology, the term 'portal' means something a little different. Whilst avoiding the difficult territory of attempting a portal definition, there are some broad characteristics of these portals that can be identified. A portal will generally:

- allow user authentication and authorization at a single point of contact to be applied to other entities within the portal;
- allow multiple types and sources of information to be displayed on a single composite screen (multiple 'channels');
- allow user personalization of the look-and-feel of the interface, and the selection of channels;
- provide a consistent style of access to diverse information sources;
- facilitate transaction processing as well as simple data access.

In the context of a university enterprise portal, the portal might bring together learning resources, teaching technology, university information and general information within a single sign-on and single look-and-feel environment.

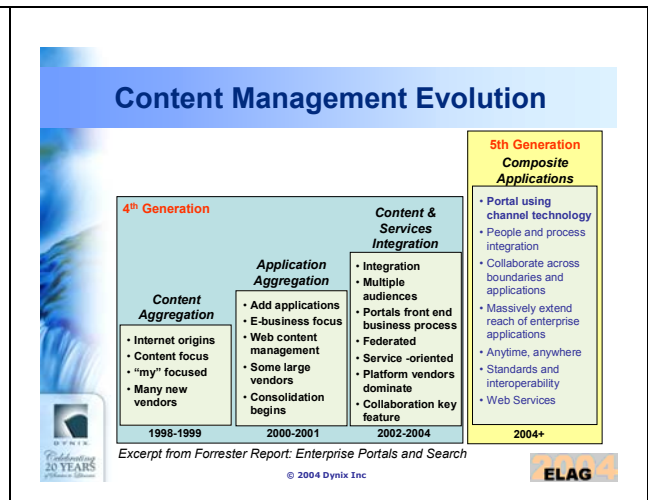
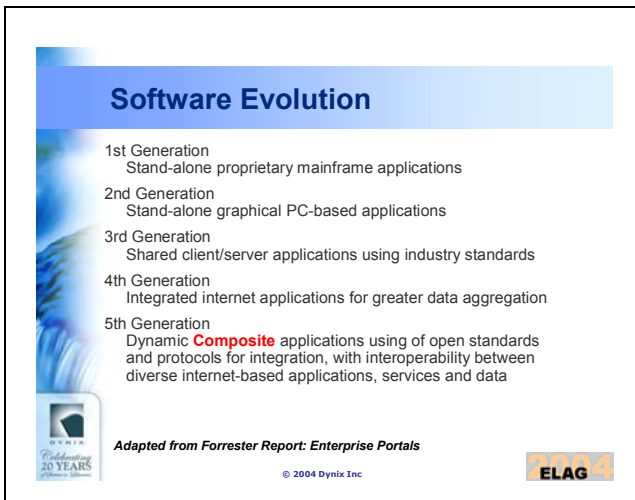


Importance of Portals

This 'true' portal concept and its supporting technologies are emerging as a key new technology paradigm, and may start to re-define the architecture of new computer systems in the same way as the transition from mainframe to minicomputer to client-server characterised the key technology shifts in the past.

It also represents a shift in the way web-available content and processes are presented and managed, from the early internet model of 'Content Aggregation' through to the new generation of 'Composite Applications' (Forrester).

So we are seeing a transformation in the relative importance of technology components; as the 'back-end' starts to have reduced prominence compared with 'front-end'. Now it looks as if it is more important how accessible and presentable the information is than how it is being managed in the server. Of course the management, integrity, quality and availability of the data itself remains important, but the new developments visible to end-users (and to providers of funding) are focussed on the presentation.



Where we are in the lifecycle of these new portal technologies is just at the point where the pioneers or 'early adopters' are beginning to hand over to the 'early majority'. The most forward-thinking analysts, technologists and institutions have already laid out the portal landscape and have started to implement workable solutions, and it is now the moment for those with the ambition to be 'modern' rather than 'leading-edge' to start to invest in this area.

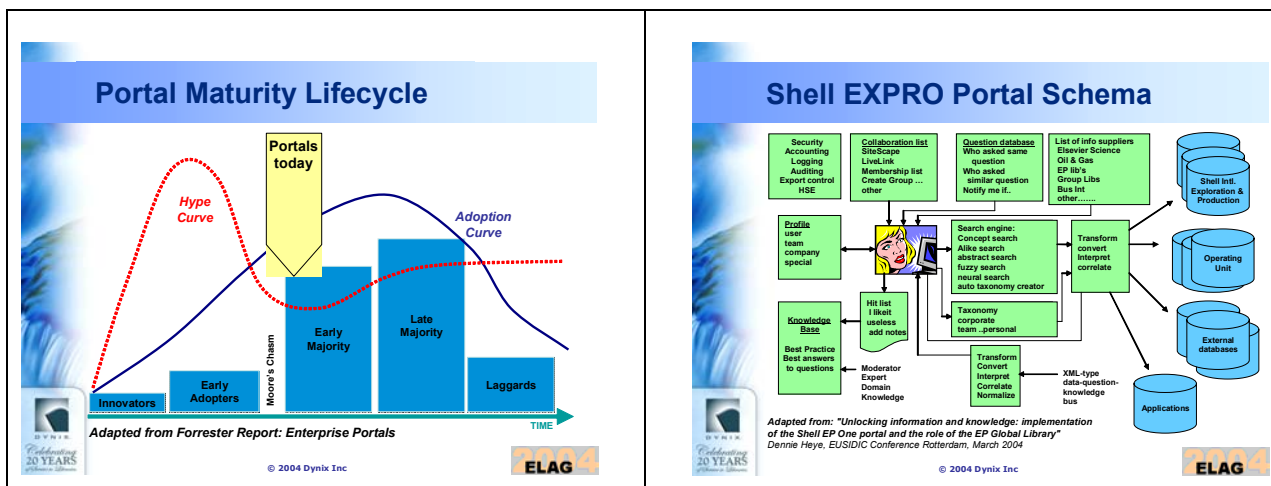
The participation so far has been variable by geography, sector and institution and we are seeing commercial internet-service portals (such as "My Yahoo") taking the lead in the USA and Japan, while ambitious academic enterprise portals have been attempted in the East (notably at Temasek Polytechnic in Singapore) and seem to also be the most pressing concern of many libraries in France today.

Meanwhile in the USA, the UK and the Nordic countries, many universities are in the process of developing academic enterprise portals. Yet many of these academic enterprise portal projects seem to be primarily IT-led. They are at the stage of integrating diverse technologies and

disparate web and data silos, rather than moving on to presenting a common information and learning-resource environment, or in providing a common interface to transaction processing systems.


Central and local government bodies are investing heavily in widening electronic access to information and transactions, under the generic heading of eGovernment, with Northern Europe, North America and Singapore leading the way in this area; government is starting to deliver this access through a portal framework.

In the corporate sector, research-based businesses (such as Shell and various pharmaceutical companies), are starting to turn their 'flat' intranets and unstructured data resources into managed portal environments.



Portal Technologies & Methodologies

There are, of course, a variety of portal-building technologies available today, and it is not within the scope of this paper to comment on the range and capabilities of these tools. However, one initiative of special interest to academics will be the uPortal open source initiative. uPortal is a portal-building toolkit developed and supported by various academic institutions under the umbrella of JA-SIG and supported by Sun Microsystems, amongst others. Academic institutions looking at developing enterprise portals should certainly be considering uPortal, and libraries that want to integrate with their current or future enterprise portal should be considering how their current software can integrate with uPortal or other similar technologies.



Evolving portal implementations from participating universities & partners

uPortal is a free, sharable portal under development by institutions of higher-education. This group sees an institutional portal as an abridged and customized version of the institutional Web presence... a "pocket-sized" version of the campus Web. Portal technology adds "customization" and "community" to the campus Web presence. Customization allows each user to define a unique and personal view of the campus Web. Community tools, such as chat, forums, survey, and so on, build relationships among campus constituencies.

uPortal is an open-standard effort using Java, XML, JSP and J2EE. It is a collaborative development project with the effort shared among several of the JA-SIG member institutions. You may download *uPortal* and use it on your site at no cost.

Web Development with Oracle Portal

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Mohamed El-Mallah

Perhaps of more interest to librarians is the general approach being taken in the development of enterprise portals by institutions. It seems to generally be the case that enterprise portals projects are sponsored by top management and are led by information technology departments. This is by no means universal, but for example was the prevailing model in evidence at the Pan-European Portals Conference in Geneva about one year ago.

It has been commonplace, in many institutions, for the library not to be a participant in the early stages of such projects. This seems sometimes to be because the library is thought of as 'a building full of books' and therefore irrelevant to the project, and sometimes (conversely) as the library is already well-served by a sophisticated web interface, it is not seen as a problem area, and is reserved for a later phase.

Such technology-led projects tend to focus on particular things, such as:

- o selecting (or even developing) a portal-building toolkit;
- o providing a common authentication and authorisation schema;
- o presenting an elegant and sophisticated user interface;
- o integrating publicly accessible information resources (such as news feeds and transport timetables) into the portal;
- o tidying up diverse and disparate information silos and uncoordinated departmental web resources;
- o developing web-enabled interfaces to legacy applications.

Enterprise Portals & Libraries

Where these enterprise portals take this technology focus and marginalise the library, this presents a real threat to both the portals and libraries. Some commentators argue that the combination of online databases, search engines and portals make libraries redundant, and librarians need to show that their skills are highly relevant to portal projects and that 'their' content is central to the value that a portal can offer.

Technologists building portals tend to run into difficulties, however, and this presents an opportunity for librarians to participate and take a leadership role. Problems tend to occur in three key areas:

- o Content – trivia is easier to find and to present than substance;
- o Classification – somehow the portal must manage all this 'stuff';
- o Copyright – screen-scraping and channel-grabbing is not an option.

These are, of course, areas where librarians have exceptional expertise and resources. Where librarians are positioned in the centre of the enterprise portal project (whether as the sponsoring department or simply as recognised experts), these fundamental problems tend to get addressed earlier in the project lifecycle, and are more readily resolved.

As an example, at Shell Exploration & Production, the portal project began as an IT-led initiative, but after an initial 'false start' the library became responsible for the portal content, classification and copyright issues, and this allowed a much better result.

<p>Shell EXPRO Portal</p> <p>Shell Exploration & Production</p> <p>Role of the EP Global Library</p> <ul style="list-style-type: none">• changing role of the library• portal is a step toward the virtual library• library expertise on:<ul style="list-style-type: none">■ what users want (content, features)■ available content internal and external■ content issues■ storage, retrieval, structure (incl. taxonomy)■ logic and common sense <p><small>Adapted from: Dennie Heye, EUSIDIC Conference Rotterdam, March 2004 "Unlocking information and knowledge: implementation of the Shell EP One portal and the role of the EP Global Library" © 2004 Dynix Inc</small></p> <p>ELAG</p>	<p>Shell EXPRO Portal</p> <p>Shell Exploration & Production</p> <p>Lessons learned</p> <ul style="list-style-type: none">• be aware of legal issues (contracts, screen scraping, etc)• negotiations with vendors (not every vendor is portal ready)• the portal makes the organization more transparent• opportunity to raise library awareness• portal pitch is different for teams• single point of entry to information has advantages and draw backs• the portal makes the world smaller <p><small>Adapted from: Dennie Heye, EUSIDIC Conference Rotterdam, March 2004 "Unlocking information and knowledge: implementation of the Shell EP One portal and the role of the EP Global Library" © 2004 Dynix Inc</small></p> <p>ELAG</p>
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An institution's librarians can make a critical contribution to the development and ongoing effectiveness of an enterprise portal in three key areas: People, Content and Value.

In many enterprises, the library knows a great deal about the enterprise portal's target user population. Not just who they are, but also their history of past interactions with information resources. The library is likely to have knowledge about Personal Data, Usage History, Behaviour History, Discipline Practices, Groups or Roles, and Authentication & Authorisation.

The library is also expert on how to acquire, classify, manage and deliver a diverse array of information resources. The librarians understand subscriptions, cataloguing, copyright management and online information access much better than most non-library technologists.

<h3>The Library Knows The People</h3> <ul style="list-style-type: none"> • The Library knows about users • The Library knows about groups • Personal Data • Usage History • Behaviour History • Discipline Practices • Groups (or Blackboard Roles) • Authentication and Authorisation  <p>© 2004 Dynix Inc</p> <p>ELAG 4</p>	<h3>The Library Knows The Data</h3> <ul style="list-style-type: none"> • Content Management • Classification • MetaData • Presentation of Digital Resources • Ownership & Copyright • Acquisition of 3rd-Party Content  <p>© 2004 Dynix Inc</p> <p>ELAG 4</p>
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Finally, the library well aware of what information is valuable and meaningful, and conversely, what information is of lesser importance or can be readily accessed by less sophisticated means. The library is experienced in being a repository, and an access point, for meaningful resources and is (normally) focussed on delivering information to end-users and (often) on supporting teaching and learning. Librarians can not only show that presenting CNN, weather forecasts and bus timetables in a student portal is somewhat irrelevant, but they can also offer a more robust and substantial alternative.

<h3>The Library Knows the Value</h3> <ul style="list-style-type: none"> • Resource Repository • Resource Management • Resource Access Point • Supports Teaching and Learning • Real Portal Content to Support Educational Objectives • Not CNN, Weather, Bus Timetable  <p>© 2004 Dynix Inc</p> <p>ELAG 4</p>	<h3>Libraries and enterprise portals</h3> <ul style="list-style-type: none"> • A library portal is not a portal • Enterprise portals are the future • Enterprise portals need librarians • Librarians need enterprise portals <p>Mark Carden Vice President, Europe Middle East & Africa</p>  <p>mcarden@dynix.com</p> <p>© 2004 Dynix Inc</p> <p>ELAG 4</p>
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Conclusion

So the key messages from this paper are:

- That libraries and librarians need to recognise that what many of them think of as a portal is a very narrow concept, born out of an extension of the traditional Web OPAC.
- That the broader model of the enterprise portal is about to become very significant, and is both an opportunity and a threat to the library.
- Enterprise portals need librarianship skills and library-managed content to be truly effective.
- Librarians need to actively engage with enterprise portal projects, both to add value and to preserve their role in the enterprise.

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