This article examines policy level issues which impact on metadata implementation at the State Library of New South Wales. These issues present challenges and opportunities for the establishment of a new “digital” Library identity and for the forging of new “digital” relationships with client groups and with other cultural, educational, government, and commercial institutions. Such issues are usually highlighted through analysis of discrete or related local, national or international projects. This article provides a complementary perspective by taking, instead, a single, whole-of-organisation approach. It is based on a paper presented at the “Beyond the Beginning: the Global Digital Library” conference, London, 16-17 June 1997.

IN THE COMPANY OF STRANGERS: CHALLENGES AND OPPORTUNITIES IN METADATA IMPLEMENTATION

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INTRODUCTION

Trial implementations of metadata are just one aspect of the variety of digital library pilot projects in progress around the world. The current range of Australian initiatives has been well documented in Ariadne (1997) and D-Lib Magazine (Iannella, 1996) and updates can be found through the Web sites at the Distributed Systems Technology Centre (1997) and the National Library of Australia (1997a). A prominent success factor in most pilot projects to date has been a careful identification of project boundaries, so that the “ingredients” - specific architectures, tools, formats or schema - can be tested effectively.

However, moving beyond this excellent beginning to a sustainable digital library of the future requires consideration of other issues. For example, the Stanford Digital Library Project recognises the need for “glue” to hold disparate digital and conventional collections together to make them useable worldwide “as a unified entity, in a scalable and economically feasible fashion”. (Jeapes: 1996: 63) This paper addresses another form of “glue” which needs to be developed by each organisation planning to participate in the development and management of the global network of information resources. The basic ingredients for this “glue” are conceptual and not technical. They arise from two fundamental questions which must be addressed at a whole-of-organisation level:

• What are the key attributes of our digital identity?
• Who are our clients and what characterises our digital relationships with them?

The title phrase, “in the company of strangers”, serves to highlight the importance of establishing both identity and relationship in the emerging world of networked resources. This paper illustrates the importance of these
questions by examining them in the context of current planning for metadata implementation at the State Library of New South Wales.

Our current corporate planning provides the framework for an exciting range of plans and initiatives which will position the State Library of New South Wales as a place which can provide inspiration, education, information and entertainment through the rich resources of its own printed, pictorial, manuscript, map and electronic records, as well as those available through the Internet and other international networks. (State Library of New South Wales, 1997)

Some of these plans and initiatives are directly related to creation of a new digital “information space” - implementation of a new library management system, redevelopment of our Web site and strategic planning for digitisation of information resources and the preservation of digital media. Other significant challenges and opportunities provide the backdrop to these initiatives and stimulate examination of the questions of identity and relationship:

• integration of client-centred principles in all aspects of the Library’s operations
• opportunities for funding and collaboration provided by the Australian Centenary of Federation in 2001
• strategic repositioning of public library networks and services
• increasing pressures on library collections from significant changes in secondary and tertiary education
• emphasis on a whole-of-government approach to information management and technology at both a state and federal level
• the growth in importance of sponsorship and strategic partnerships to achievement of corporate goals.

CREATING A DIGITAL IDENTITY

In the physical world, the identity of the State Library of New South Wales is created by several distinguishing features:

• the physical buildings located in the Sydney cultural precinct
• the rich and unique content of our Australian Research Collections based on the bequests of David Scott Mitchell and Sir William Dixson
• the expertise and reputation of our staff
• the access provided to these resources through our reading rooms, exhibitions, education and liaison programs and the public library network in New South Wales.

The Library holds over 4 million items in almost every conceivable expression of word, symbol, image and sound. These items include over 1 million photographs, 9,000 linear metres of manuscripts and 3,000 hours of oral history. Intellectual access is provided via card and computer catalogues and other paper and electronic finding aids. (State Library of New South Wales, 1996) Most of these resources and access tools are not yet available in electronic form, but some digitisation projects are under way. (Ventress, 1996) The distinguishing features of the State Library’s physical identity for the “public good” are - quality, reliability, continuity, community value, responsiveness, uniqueness, diversity, accessibility and expert assistance. These are the features which need to be replicated in the State Library’s “digital” identity.
CREATING DIGITAL RELATIONSHIPS

Individuals

The primary clients of the State Library are the people of New South Wales. The state population of over 6 million is one third of the national total. Two thirds of the state population reside in the greater Sydney area and therefore have reasonable physical access to the State Library. (Australian Bureau of Statistics, 1996a) While a quarter of New South Wales households frequently use a home computer, less than 10% currently have access via modem to the Internet. (Australian Bureau of Statistics, 1996b) There are still significant barriers to Internet usage, such as infrastructure, cost and service reliability, particularly in rural households. These barriers will need to be removed for the State Library to promote and sustain an effective digital identity in the future.

Our clients are extremely diverse in age, educational level, cultural background and physical abilities. This affects their current interaction with services such as educational programmes, multicultural services and disability access. We will need to ensure that this diversity is catered for by our digital identity in the future. We also have no control over the capability of the equipment and software our clients will employ to access our electronic resources.

Our clients approach the search for information in different ways depending on their role or needs, for example, as a serious researcher or casual browser. In the physical world these varying needs have been catered for with separate physical spaces and collections (reading rooms) and separate services. The physical organisation makes some of the access and navigation decisions for the client in advance. We will need to re-examine these physical assumptions in the design, content and navigational aids provided in our “digital space”.

Resources

Libraries have always provided excellent access to discrete physical resources through traditional descriptive cataloguing methods. Relationships among items are established through shelf arrangement, authority records, subject headings and other means. The State Library of New South Wales also has a strong tradition of providing links among physical resources through its exhibition programme and the publications and presentations of its curators and other expert research staff. These links enrich the access provided to resources and make an important contribution to the Library’s unique identity.

Organisations

The State Library of New South Wales has always had strong relationships with a wide variety of other organisations at a local, regional, national and international level. These organisations encompass libraries, other cultural institutions, such as galleries and museums, government agencies, large and small businesses, and all levels within the education sector.

In the physical world, these relationships have been dominated by the sharing of staff expertise through a service or project, or by loan or copy of a physical artefact. Many of these relationships are now being redefined in the “digital” world. Although relationships with all
types of organisations are changing, the following descriptions focus on government and other cultural institutions, including libraries in all sectors.

In February this year the New South Wales Government released a whole-of-government blueprint for information management and technology designed “to create accessible and responsive government services and deliver them efficiently and cost-effectively to the community”. (New South Wales Department of Public Works and Services, 1997: ii) Use of the Internet for information and service delivery is central to the achievement of the vision and strategies contained in this blueprint. Whole-of-government approaches to information management and technology in Australia are now common at both state and national level. (Information Management Steering Committee, 1997)

Since 1993 the Libraries Working Group of the Australian Cultural Ministers Council has been undertaking significant research into the effective positioning of public libraries in the emerging knowledge economy. (Cultural Ministers’ Council, Libraries Working Group, 1995a and 1995b) Their latest report describes the power of the “electronic and programmatic” relationship of public libraries with other kinds of libraries as “providing a formidable world-class resource to ensure that all of Australia enters the ‘information age’ and the knowledge economy with skill, confidence, creativity and acumen”. (Cultural Ministers’ Council, Libraries Working Group, 1996:i)

There are several significant projects in Australia which will impact on the definition of digital relationships among libraries. At a national level, there is the Networked Services Project of the National Library of Australia (National Library of Australia, 1997b) which will affect union cataloguing and inter-library loan relationships for all libraries. In New South Wales, the State Library is managing a project on behalf of New South Wales public libraries to enhance regional electronic relationships through creation of a universal and robust connection of all central libraries, metropolitan and rural, to the Internet.

Collaboration between museums, libraries and archives is also being actively encouraged through Australia’s Cultural Network (ACN), a new, three-year programme funded at national level to provide a “virtual gallery” for thematic exhibitions, a gateway for access to cultural networks and a forum for the exchange of ideas. (Department of Communications and the Arts, 1997) The first themes chosen for the “virtual gallery” are related to two significant events in Australia’s future: the Sydney 2000 Olympic Games and the Centenary of Federation in 2001.

IMPLICATIONS FOR METADATA IMPLEMENTATION

This examination of the nature of digital identity and relationships has profound implications for the whole-of-organisation approach to implementation of metadata, defined here as the succinct description of the intellectual and technical aspects of networked resources. (Iannella: 1997a) Metadata standards under development are designed to fit between the current “retrieval anarchy” created by free-text Web search engines and the labour intensive nature of records created by the professional using, for example, the library MARC (machine-readable cataloguing) standard. The purpose of such standards is to encourage
resource description that facilitates access for searchers across subject, format, professional and geographic domains. In other words, metadata should enable searchers to identify resources and establish relationships between them, even in unfamiliar contexts.

There are several useful and flexible standards which will enable the State Library to reinforce some of its distinguishing features and assist clients in locating the site. A local adaptation of the PICS (Platform for Internet Content Selection) standard (World Wide Web Consortium, 1997) could be used to provide labels which reinforce the reputation of the site and its suitability for educational usage.

It is likely that the whole-of-government initiatives in information management will mandate use of an Australian adaptation of the GILS (Government Information Locator Service) standard in the future. (Christian, 1996; Information Management Steering Committee Technical Group, 1997) This will be useful for the State Library to identify its human expertise and its vast paper-based collections as well as its electronic resources.

Adoption of permanent naming conventions for digital resources will be an important way to ensure that reliability and continuity remain among the State Library’s key attributes. Conventions to be considered to uniquely and permanently identify our digital resources include “handles” (Kahn and Wilensky, 1995), Uniform Resource Names (URNs) and Permanent Uniform Resource Locators (PURLs) (Iannella, 1997b).

It is clear that the Library will maintain its current investment in the MARC standard, as this facilitates its relationships with other libraries. However, there are now very real opportunities for digital collaboration with other cultural institutions. The State Library shares the “story-telling” tradition with museums, through its production of finding aids, exhibition catalogues and other publications which link and aggregate diverse resource formats to produce new resources. It will be important for us to be able to describe and manage digital objects as aggregations as well as discrete resources. Therefore, we need monitor the development and application of the CIMI (Computer Interchange of Museum Information) Standards Framework (Coalition for Networked Information, 1993) and its potential use by the Australian Museums Online (AMOL) Project (National Museum of Australia, 1997). The Standard Generalized Markup Language Encoded Archival Description Document Type Definition (SGML EAD DTD) (Library of Congress, 1997) for the description of finding aids, inventories and other registers is also of vital interest.

However, adoption and implementation of appropriate metadata standards will also provide challenges and opportunities for an organisation which has such a range of resource formats and a complex set of relationships with individual and institutional clients. Our digital “information space” will have to recognise and resolve the coexistence of the different metadata standards required for collaboration in different domains - so that we can cease to be “in the company of strangers”.

Diversity will certainly be a hallmark of our digital identity, but there will be a tension between the desire for simplicity and the need for the flexibility. The challenge is to provide accessibility in the presence of such diversity and to manage and grow the site without impossible overheads in resource description, standards transl-
tion and provision of flexible access tools to individual clients located anywhere in the world.

Fiordini (1996) suggests that the Internet provides an unparalleled opportunity to derive new insights and knowledge because primary data and metadata can be combined and explored in domains outside those in which they were created. The State Library of New South Wales has the opportunity to create new information resources to support this process by leveraging its unique collections and staff expertise. The challenge is to build the digital architecture that will facilitate and manage this activity - to construct “the digital heritage of the next millennium. Depending on how we meet the challenge, future generations will consider us as new Pygmalions or as old Frankensteins” (Fiordini, 1996:52).

REFERENCES


ABOUT THE AUTHOR

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