



STATE LIBRARY OF
NEW SOUTH WALES

Virtual Spaces

guidelines for public library websites

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Contents

Foreword	2
Acknowledgements	4
Section 1 – Introduction	5
Section 2 – The guidelines	6
2.1 Planning	6
2.2 Resourcing	7
2.3 Skills development	8
2.4 Design	9
2.4.1 User-driven design	9
2.4.2 Look and feel	9
2.4.3 Technical standards	10
2.4.4 Structure	13
2.4.5 Dynamic sites	14
2.4.6 Accessibility	14
2.4.7 Non-text elements	16
2.4.8 Images and colour	16
2.4.9 Proprietary formats	17
2.5 Content	18
2.5.1 Dynamic content	18
2.5.2 Contact	18
2.5.3 Dates	19
2.5.4 Information content	20
2.5.5 Cooperation	21
2.6 Promotion	22
2.6.1 Site visibility	22
2.6.2 Domain names	22
2.6.3 Descriptors	23
2.6.4 Archiving	25
2.6.6 Master version	17
Section 3 – Further reading	27
Section 4 – Conclusion	29
Section 5 – References	33

Foreword

For the public library network to maintain its position as the major provider of public access to the Internet it is important that it develops websites that deliver services through *virtual spaces* in the online environment.

While libraries as physical entities (*people places*) remain important, so too are *virtual spaces* in providing a whole of library service. Public library services must provide flexible people places **and** effective virtual spaces for their communities.

The idea for the website guidelines had its genesis with the feedback received after the paper *Creation and Evolution* was circulated to the New South Wales public library network for comment in September 2000.

This paper discussed the results of a survey of public library websites and outlined

strategies that libraries could adopt to create or evolve their websites. As a result of this consultation the value of having guidelines to assist in the creation of public library websites was identified.

The guidelines have been formulated in consultation with the New South Wales public library network.

In November 2001 a draft version of this paper containing recommended guidelines for websites was issued to NSW public libraries for their consideration.² Feedback was encouraged and it has served to shape the final version of the guidelines.

The Library Council of New South Wales endorsed the guidelines at its meeting on 24 March 2003.

The Hon Justice Mahla L. Pearlman AM
President, Library Council of New South Wales

Dagmar Schmidmaier
State Librarian & Chief Executive

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SECTION 1

Introduction

These website guidelines are not intended to be comprehensive in their coverage; rather they are designed to be guiding principles. The aim is to provide a core set of guidelines that public libraries can use to create and evolve their websites.

It is hoped that the guidelines will serve as a stimulus to good practice and assist public libraries to develop more comprehensive guidelines that meet individual needs. Therefore these guidelines are provided as a starting point and, where appropriate, provide reference to other widely accepted standards and guidelines.

The guidelines are arranged under the following key areas:

- Planning
- Resourcing
- Skills development
- Design
- Content
- Promotion

Public libraries, having created websites, are responding to the challenge to evolve these websites into *virtual spaces* that will serve as key library service points in the

future. These guidelines are intended to assist in this development. The future is here, now!

SECTION 2

The guidelines

2.1 Planning

Planning is a key requisite for developing and managing a website. The preparation of a plan will assist a library to identify the resources required, both the funding and staffing; as well as the strategies for the development of services. A plan can identify which services to make available together with a timetable for implementation. The plan should not only address hardware and software requirements but also the staff training and service support needed to help ensure the development and management of a website. In short, the plan should answer these basic questions:

- what will the website do?
- who will do it?
- what resources are required?
- when will it be implemented?
- how will we know when we get there?

The essential elements of a website plan include:

- the establishment of clear goals, strategies and content for the website;
- a professional development strategy to ensure that staff acquire the skills and

expertise to effectively develop and manage the website;

- an assessment of the telecommunications services, hardware, software, and other technology that will be needed to provide the website;
- details of the budget required to acquire and maintain hardware, software, staff training, and other services that will be needed to implement the plan; and
- an evaluation process that enables progress toward the plan's goals to be monitored and changes in response to developments and opportunities that arise to be made.

More specifically the plan would need to address some of the following elements:

- domain name selection and registration;
- website hosting recommendation – either external Internet Service Provider (ISP) or in-house web server;
- design issues – taking into account target audience, corporate “look”, navigation and other design elements;

- content - information and services to be provided;
- testing – response times, links, presentation and other quality issues;
- promotion;
- maintenance – continuous process of updating pages and archiving; and
- ongoing development and design.

Some examples of web-based services that may be included in the plan are:

- providing clients with access to a library's catalogue for searching, placing reservations and renewing items;
- providing interactive services such as a web-based information request service;
- developing web accessible databases, such as a community information database; and
- evaluating commercial database licenses to identify those that can be provided through the website.

Guideline number 1

Include a website strategic plan in the information and communication technology (ICT) plans of public libraries or as a separate planning document.

There are advantages of sharing the planning process. One way for public

libraries to share their plans is to make them available online through their websites, drawn together under a central links page. An example of this approach is the Commonwealth Government's *Government Online* initiative.³ In order to facilitate this initiative the National Office for the Information Economy developed *Online Action Plan Guidelines*⁴ for departments and agencies to follow. These guidelines can help public libraries develop their own plans. As part of this process Commonwealth departments and agencies are required to make their plans available online so that the community can comment on the plans. It also allows departments and agencies to review each other's plans. Links to these plans, including that of the National Library of Australia, are available through the *Government Online* website.⁵

Guideline number 2

Make website development plans available online so as to invite community comment and to facilitate the sharing of plans across the public library network.

2.2 Resourcing

Resourcing issues need to be addressed if websites are to be developed and managed effectively. The commitment required is an ongoing one if libraries are

to provide successful community-based websites.

The aim of public libraries websites is to provide accurate, reliable and up-to-date information, as well as an increasing range of timely library services. To achieve this it is critical that the management of a library website is seen as part of the mainstream operations of a library. Until it is there is little likelihood of adequate resourcing being allocated to the ongoing development of web-based library services.

Providing web-based services is a professional task that requires a designated web librarian to coordinate. In many libraries the web librarian will liaise with the person responsible for the council's website in developing the library's part of the website.

Guideline number 3

Allocate the management of a library website as the major responsibility of a designated "web librarian" or allocate as a major duty to a professional librarian.

While the management of a library website is the responsibility of a librarian the ongoing maintenance and markup of pages could be allocated to a trained library technician or assistant.

In addition, library staff should take ownership for "their" part of the website. For example, a local studies librarian should play a major role in the development of a local studies presence on a library's website. Part of this role could include obtaining electronic copies of council publications and reports. Therefore, depending upon the size of the library, consideration should be given to the formation of a web team, convened by the web librarian. The team would include key library staff, such as the local studies, community information, information services and technical services librarians; as well as the staff member(s) responsible for the ongoing maintenance of the website. All web team members should be adequately trained.

Guideline number 4

Create a web team made up of key client services staff, each with responsibility for a discrete part of the website and for coordinating ongoing development of that component.

2.3 Skills development

It is essential that the ability to develop and manage websites be seen as a core skill set for library staff and that training and facilities are provided to support the development and management of a library's website. This means that the necessary skills and resources required

must be identified as core strategies in strategic and training plans.

Guideline number 5

Include strategies in training and website development plans so as to ensure that staff acquires the skills necessary for the development and management of websites.

2.4 Design

2.4.1 User-driven design

The design of a website is critical in meeting the needs of users. Therefore public libraries websites must be designed with the user in mind. It is essential that websites be designed to be inclusive and not exclude sectors of the community.

If designing a site for the “general public” then users’ situations and technical capabilities will vary greatly. For example, it is fair to assume that many users of public libraries access the Internet through low bandwidth modem connections. In addition, people in rural areas are often constrained by the limited quality of rural communications infrastructure. This user-operating environment dictates that public libraries websites should be designed so that download times are minimised. One way to achieve this is by reducing file sizes. Some techniques that can be used to reduce file sizes and thereby download times include:

- avoiding the use of unnecessary repetitive codes by using Cascading Style Sheets (CSS) instead;
- splitting long pages into a series of small pages through a contents or index page; although offering one long document for printing can be useful – therefore both approaches could be used for longer documents;
- using background colours in preference to background images for pages; and
- reducing the number and file size of images.

Guideline number 6

Design public libraries websites so that download times are minimised.

2.4.2 Look and feel

A website must have a consistent look and feel. This makes it easy for people to use and understand, gives coherence and integrity, and conveys corporate identity. Using templates to develop web pages is one technique that can be used to ensure a consistent look and feel. It also makes the task of managing a website easier for the library and provides consistency in design and navigation for the user. Often the best designed websites are those that present a simple and consistent design.

Guideline number 7

Create web page templates for websites so as to ensure a consistent look and feel that reflects corporate identity.

2.4.3 Technical standards

In order to ensure functionality and access public libraries websites should be developed and designed using open Internet standards. The World Wide Web Consortium (W3C) is a vendor-neutral consortium that develops common protocols that promotes the evolution of the web and ensures its interoperability. To this end the W3C issues recommendations on web technologies. For example, a recommendation for the *HTML 4.01 Specification*⁶ was issued on 24 December 1999. This specification defines the HyperText Markup Language (HTML), the main publishing language of the web. In using HTML to create a website it is good practice to code pages to conform to the most recent or widely accepted version of HTML.

Guideline number 8

Design and develop websites using open Internet standards, such as the World Wide Web Consortium's recommended HyperText Markup Language (HTML) specifications.

XHTML or XML (EXtensible Markup Language) is W3C's latest recommendation for HTML.⁷ It is a reformulation of HTML 4 and is an emerging format for web documents that most likely, in time, will become the preferred web publishing format.

Some of the major differences from HTML 4 are that XHTML elements must be correctly nested, all elements must be closed, tag names must be in lowercase and all attributes must be in lowercase and enclosed in inverted commas. It is recommended that libraries currently coding pages to HTML 4 implement the above practices as, sooner or later, they are likely to be required to upgrade their pages to conform to XHTML. More information on XML is available at the W3C website.⁸

Guideline number 9

Staff responsible for the management of public libraries websites should ensure that:

- all elements are correctly nested
 - all elements are closed
 - all tag names are entered in lowercase
 - all attributes are entered in lowercase and enclosed in inverted commas
-

All HTML pages should include the following high-level HTML elements:

- a line that indicates the HTML version;
- a header section delimited by the HEAD element; and
- a body that includes the actual content of a document that is implemented by either the BODY element or the FRAMESET element.

For example, the basic structure of a HTML document takes the following form:

```
<html>
  <head>
    <title>document title</ title>
    Other head elements
  </head>
  <body>
    Document body
  </body>
</html>
```

Guideline number 10

Include high-level HTML elements in all documents such as the <html> <head> and <body> elements.

It is important to use correct HTML coding when marking up pages for a website. Some web browsers accommodate incorrect coding and will display pages as intended by the web editor. However, many browsers, and different versions of some browsers, do not always make

allowances for incorrect or “bad” code. In addition, incorrectly coded pages can cause many problems for text readers used by people with print disabilities to access web pages.

Guideline number 11

Use HTML (HyperText Markup Language) tags correctly when marking up pages for a website.

The importance of correct coding as well as including the current Document Type Definition (DTD), such as <!doctype html public "-//W3C//DTD HTML 4.0 Transitional//EN">, at the top of all web pages will assume greater importance as new ways to access the web, such as handheld devices, become popular.

Guideline number 12

Include the Document Type Definition (DTD) at the beginning of each page.

The use of HTML validators can be used to check that web pages contain no incorrect code. W3C provides an *HTML Validation Service*⁹ that can be used online to validate pages.

Guideline number 13

Validate web pages using a recognised HyperText Markup Language (HTML) validation services or programs.

Before implementing a new design template for a website it is good practice to validate the template code. The template design should also be tested using a number of web browsers to ensure the page has a relatively consistent look across different browsers; especially across the most widely used browsers.

Guideline number 14

Preview new design templates using a range of web browsers.

Cascading Style Sheets (CSS) allow templates to be created for the presentation of web documents. W3C has produced two recommendations for CSS (CSS1¹⁰ and CSS2¹¹) and is currently working on CSS3. CSS is the HTML 4 approved method for controlling visual presentation on web pages. CSS contain groups of style rules that define how HTML pages appear in a web browser. Typically, styles are defined in an external file linked to a web page or to files across a website. This makes the management of site-wide changes easy to implement.

It is possible to create several style sheets, although it is preferable to use a single style sheet for a website as this ensures a common look and feel across the site.

More information on CSS is available at the *W3C Web Style Sheets home page*.¹²

The W3C also provides a *CSS Validation Service*.¹³

Guideline number 15

Plan for the implementation of Cascading Style Sheets (CSS) for managing the presentation style of a website.

In coding web pages it is good practice to avoid the use of deprecated tags. A deprecated tag is one that has been superceded by newer constructs and may become obsolete in future HTML versions. For example, the 'font' tag is deprecated in HTML 4. The *HTML 4.01 specification* includes examples on how to avoid using deprecated elements. In most cases these depend on the use of CSS to achieve stylistic and formatting effects rather than HTML presentational attributes, such as the 'font' property in CSS. When style sheet alternatives are available HTML presentational attributes have been deprecated.

An index of HTML elements and attributes is available through the W3C.¹⁴ This index indicates which tags are deprecated.

Guideline number 16

Avoid the use of deprecated tags in favour of Cascading Style Sheets (CSS).

2.4.4 Structure

All websites are designed around a home page that acts as the “front-door” or entry point to a website. However, the nature of the web is such that many users will not visit sites through the “front-door”. Rather, they will visit a page within a website. It is therefore important that web pages are designed to be freestanding. The *Yale Style Manual*¹⁵ emphasises that due to the nature of hypertext, web pages need to be able to stand alone in contrast to pages in a book. For example, web pages require more informative and detailed headers and footers, such as the inclusion of copyright, author and date of creation at the bottom of each web page. All web pages should include, as far as possible, a title, author’s name and institutional affiliations, a date, and a link to the home page.

It is critical for users to always be able to return easily to a website’s home page. Websites should not include any “dead-end” pages; that is a page with no links to other pages on the website. Dead-end pages represent a possible lost opportunity that can be frustrating for the user and therefore should not occur. Consideration can be given to including headers or footers on all pages that feature links to the main navigational points of a website. The main navigation menu should be available on a home page and be presented consistently across a website.

Guideline number 17

Include consistent site and page navigational aids on all web pages with, at minimum, a link back to the home page.

All web pages within websites should be organised by topic into folders or directories. For example, all pages about a library may be located in one folder and all images may be located in another folder.

It is useful to include a table of contents list with hyperlinks to sections for all pages longer than a few screens. As a general guide, it is desirable for most pages on a website to be limited to one or two screens in length. Information should be organised into small chunks of related information within a hierarchy.

For larger websites providing a site map or a site-specific search facility can enhance access. Likewise, a what’s new facility on a home page can encourage users to regularly return to a website, especially if content is being regularly added or updated.

Since Universal Resource Locators (URLs) are case sensitive it is good practice to ensure that names of folders and files be in lower case. It is also worth keeping them relatively short.

Guideline number 18

Keep the names of folders and files in lower case.

2.4.5 Dynamic sites

Most websites were developed initially around a series of hard coded static pages. This structure, while useful for presenting information, has limitations in making large amounts of information available, especially if the content frequently changes or is contained within a database. In addition, a static site is not ideal for facilitating the development of interactive features. A more flexible approach is to create a dynamic site, which generates pages of information when required from a database. A website template includes queries that specify which categories of information to retrieve from a database and where they are to appear on a web page. In other words these pages are created in real time in response to a user request.

While dynamic sites are more complex and expensive to develop initially they have ongoing management and service advantages. Also the technology for interfacing websites with databases continues to improve. An example of a common script language used to achieve connectivity between websites and databases is ColdFusion.¹⁶

Guideline number 19

Identify resources and services that would be best delivered dynamically and plan for their implementation.

2.4.6 Accessibility

Public libraries websites will become a key service point for library services in the future. It is therefore critical that they are designed to be accessible in the same way access features are incorporated into the design of new library buildings. However, if web pages are not designed with access in mind, there is a danger that people with disabilities will be excluded from public library online services. For example, non-standard HTML mark-up of web pages or mark-up that does not have the layout defined in a separate style sheet can be difficult for adaptive technologies like text readers to cope with. In addition, websites that have not been designed to be accessible have legal ramifications under the Australian *Disability Discrimination Act 1992*.¹⁷

The Australian Human Rights and Equal Opportunity Commission (HREOC) has issued advisory notes on how to design accessible websites.¹⁸ These notes illustrate the potential barriers that people with disabilities face in using poorly designed websites. For example, current text readers used by people with print disabilities are not able to access

information or links presented only in graphics; and material provided only in audio format is not accessible to people who are deaf.

HREOC have recommended the World Wide Web Consortium's (W3C) *Web Content Accessibility Guidelines 1.0*¹⁹ to meet the accessibility requirements of the *Disability Discrimination Act*. These guidelines are an initiative of the W3C Web Accessibility Initiative (WAI). Their aim is to make web content accessible to people with disabilities.

They also make web content more accessible to users with technical constraints, such as people using low-speed Internet connections. This highlights that accessibility is a broader issue than just ensuring access for people with disabilities. For example, the paper *Websites for Rural Australia*²⁰ emphasises the need to design websites to be accessible to people living in rural areas. This paper provides guidance on how websites should be designed for promotion, to minimise download times and to provide easy navigation.

The WAI have also developed other accessibility guidelines such as the *Authoring Tool Accessibility Guidelines 1.0*.²¹

There is a *Checklist of Checkpoints for Web Content Accessibility Guidelines 1.0*²²

available that includes coding tips to improve accessibility. HTML4 also includes many features for providing access to people with disabilities.

The Online Council, a key initiative of the Commonwealth Government with the participation of the States, Territories and local government, has agreed to the adoption of the W3C's *Web Content Accessibility Guidelines* as the common best practice standard for all Australian Government websites.

Guideline number 20

Ensure websites are designed to meet standards for web accessibility, in particular those issued by the World Wide Web Consortium *Web Accessibility Initiative*.

Special validators can be used to check how accessible web pages are. For example, the Center for Applied Special Technology (CAST) provides Bobby.²³ Bobby is a free online service to help web page authors identify and repair significant barriers to access by people with disabilities. By typing in the URL of a web page, Bobby will analyse the accessibility of the page based on the W3C's WAI *Web Content Accessibility Guidelines*. A report is generated to the web browser providing advice on how accessibility can be improved if the page does not meet the guidelines. W3C's WAI also provides a

links page of evaluation, repair, and transformation tools for web content accessibility.²⁴

Guideline number 21

Check web pages for accessibility using a recognised program such as the *Bobby* service provided by the Center for Applied Special Technology (CAST).

Further useful information on accessibility is available through the *WAI Resources* page.²⁵ The use of CSS also benefits accessibility.²⁶

2.4.7 Non-text elements

It is important to use the 'alt' attribute for all non-text elements, such as images, on a website. The use of the 'alt' attribute allows users without graphics capabilities to understand the function of graphics, provided descriptive text is used. Text readers, used by people with print disabilities, can also read the content of 'alt' attributes. If this tag is not used then someone using a text reader will have no idea what is represented by the image.

Another advantage is that the text included in the 'alt' attribute will display while the image is loading or if the page loads with the image broken. In addition moving the cursor over an image will also display the descriptive text contained in the 'alt' attribute.

Guideline number 22

Use text equivalents for every non-text element on websites, such as the use of the 'alt' attribute to describe website images.

The use of the 'alt' attribute assumes even greater importance if the image is a navigational aid, such as a menu link to information on a website. Where graphics are used as hyperlinks, a text alternative must be included so that the links still work when users choose not to view websites using graphics or are unable to use graphics. In other words the website must have complete functionality even with the graphics disabled.

Guideline number 23

Ensure that websites still have complete functionality with the graphics disabled.

2.4.8 Images and colour

Graphics should be in either JPEG (Joint Photographic Experts Group) or GIF (Graphic Interchange Format) formats, as these are the formats most widely accepted by graphics-capable browsers. JPEG is a compressed images file format that is typically used for complex images such as photographs. The GIF format is often used for simple images, such as navigation buttons.

Sometimes it is desirable to make graphics transparent so that they merge with the background colour of the web browser instead of typically having a white space in and around the image. There are programs available, such as *Paint Shop Pro*²⁷ that allow transparent graphics to be created.

The width and height attributes should be used for all images to enhance the speed of page loading. If this information is not included a browser is unable to load any more of a page until the image concerned is loaded. Graphics can also be minimised to “thumbnail” images for users to preview and select from to link to full-size images.

Guideline number 24

Use the width and height attributes for all images included on websites.

In the use of colour for graphics, backgrounds or text, web safe colours only should be used. Web safe colours will display consistently as solid colours on any computer or in any web browser. Non web safe colours may display with a dithered effect on some hardware and software. In other words web safe colours can be relied upon not to break up and to map correctly.

A chart on how web safe colours display on black and white backgrounds is available at the University of Virginia

Library *Web Standards and Guidelines* page.²⁸ A chart of web safe colours with the RGB (Red, Green and Blue) colour values and the HEX (hexadecimal) code for each color is available at the New Mexico Network for Educational Communications *Web Safe Colors* page.²⁹

Guideline number 25

Use web safe colours only.

In using colours, it is critical to display text in a contrasting colour to the background colour. Text colours must be able to stand-alone and not be relied upon as users can select their own colours in which to display text. More information on graphic formats for the web has been prepared by the W3C.³⁰

The use of colours is also a design issue that needs to be considered in designing an accessible website. Many people with a visual disability find it difficult to distinguish between certain mixes of contrasting colours and other people are colour blind. A site that provides tips on effective colour contrast in designing for people with partial sight and color deficiencies is available at the *Lighthouse International* website.³¹

2.4.9 Proprietary formats

Information can be made available through a website in a variety of formats including HTML, ASCII and proprietary formats such as word processing and portable

document formats. When deciding which format to use it is important to be aware of the potential barriers created by using proprietary formats, such as Adobe® Portable Document Format (PDF). PDF is a file format that preserves all of the fonts, formatting, colors and graphics of the original document. They can be viewed and printed by anyone with the free Adobe Acrobat® Reader software.

Files that have been provided in PDF have generally been inaccessible to text readers used by people with print disabilities. This is especially the case with PDF files created in Adobe Acrobat 4.0 or earlier versions. Adobe Acrobat® 5.0 improves the accessibility of information contained in PDF files, provided they are created with Adobe Acrobat® 5.0 and read with the free Acrobat Reader 5.0 software. More information on the accessibility features in Acrobat 5.0 is available at the Adobe website.³²

Not all text readers are compatible with Adobe Acrobat® 5.0. Adobe® has identified some possible solutions for people with print disabilities to work more effectively with PDF files.³³ One solution is an online conversion service that allows any PDF document on the Internet to be converted into an HTML document.³⁴ In the interests of optimising access any documents made available in proprietary formats should also be made available, where possible, in HTML or ASCII format.

Guideline number 26

Include an alternative HTML or ASCII version, where possible, for information provided in a proprietary format.

2.5 Content

2.5.1 Dynamic content

Arguably, the most important aspect of managing a website is the provision of dynamic content. Without content or with long-term static content there is no likelihood of a website being successful. Content in the web context not only refers to information but to interactive-based services like an online information request service, either form based or mediated by a librarian through an online chat session.

2.5.2 Contact

Websites represent a “new” way for libraries to interact with their communities as they come to terms with the power of a website as a service point. Many Federal and State government departments and agencies, as well as local authorities are developing their websites into client service points. To operate successfully email has to be integrated into this new service approach. The Internet is not only an information medium but also a communication medium. There is an expectation that people visiting a library website should not only be able to access

information and services but also communicate with the library.

A well designed website will provide an email link to the site's editor on all pages. If the editor is not directly involved with the day-to-day operations of the library then an email address for the library should also be included. This address could be for a designated staff member or be a generic library address such as *librarian@libraryname.nsw.gov.au*. The advantage of a generic address is that they are portable during personnel changes.

Guideline number 27

Provide the library's email address on all web pages.

Email can also be used to shape and evolve a website by providing an opportunity for users to comment and provide feedback on design and content. This form of communication can be formalised into a survey for gathering information about the main user groups and their use of the website.

The challenge for government services is to design and implement systems and procedures to service email inquiries. It is important to consider that email is not an electronic form of paper correspondence. Email, for some clients, will not only replace paper-based correspondence, but

also the telephone or personal visit as the main means of interacting with government services. Mechanisms need to be put in place for automatic receipt of email messages. This is especially the case with specialised services, such as an information request service. Many clients expect email to generate a response often measured in hours rather than days or weeks.

Guideline number 28

Design and implement systems and procedures to respond in a timely fashion to email messages.

In addition, traditional means of contact including the library's street address and contact telephone numbers should be included on a library's home page or be linked prominently from the home page.

Guideline number 29

Include contact information, including a full street address and contact telephone numbers.

2.5.3 Dates

The date can be critical in evaluating the worth of a document, especially in subject areas, like health and the law, where currency assumes great importance. Every page on a website should have a copyright date. These dates can be included as part of the footer together with an indication of the responsible entity for

the page. As part of the copyright date consideration can also be given to providing a link to a copyright statement.

Guideline number 30 _____

Include copyright dates at the bottom of each page and give consideration to providing a link to a copyright statement.

In addition, a last updated date should appear on any pages with significant content and this date should be changed to reflect the date when any changes are made. Without last updated dates users will not be able to assess the timeliness or usefulness of a document. Consideration could also be given to using information expiry dates where appropriate.

Guideline number 31 _____

Include a last update date on all pages with significant content.

Dates must always be presented in a form that is easily recognisable throughout the world. For example the 10/08/2001 would be read as 10 August 2001 in Australia, but in the United States would be read as October 8, 2001. Therefore the following form should be used for dates that feature a day and a month: day as a number/month as a name/year as a number, such as 10 August 2001.

Guideline number 32 _____

Include dates that feature a day and a month in the following form: day as a number/month as a name/year as a number.

2.5.4 Information content

Many public libraries websites provide information about their library services only. The National Library of Australia has published *Guidelines for the Content of Library Websites*.³⁵ These guidelines identify that the following categories of information should be available through a library website: details about the library, contact details, information about using the library, details of services offered and details of what's new.

The Commonwealth Department of Finance and Administration has developed, as part of the *Government Online Strategy*, the Online Information Service Obligations³⁶ (OISOs) which define the minimum categories of information that must appear on government websites. Under the OISOs directories of services and organisations, including contact details; legislative information; and annual reports, strategic plans and other public accountability documents must be provided.

Guideline number 33

Include, as a minimum, the following categories of information:

- details about the library
- contact details
- annual reports, strategic plans, collection development policies and other public accountability documents
- information about using the library
- details of services offered
- details of what's new

As noted, the above details should be provided as a minimum or as an entry point. Such levels of information, while essential, do not realise the potential of a public library website as a virtual library. However, they do serve as the building blocks on which to provide enhanced categories of information and services necessary to evolve a site into a virtual library. Some examples include providing access to catalogues, other library created databases and online information request forms. A virtual library strategy is central to the long-term viability of public libraries websites and should therefore be reflected in the planning documents of public libraries.

Guideline number 34

Include in website development plans schedules for making enhanced categories of information and services available, such as:

- online catalogues
- local studies databases
- access to subscription based information services
- interactive services like online information request forms

2.5.5 Cooperation

Content can be generated through cooperation with other libraries and information providers. Cooperative approaches can serve to provide access to a greater range of information and reduce the duplication of effort that is currently occurring. It is also the only way that a public libraries created portal will be able to compete with commercial portals.

Public libraries could cooperate in the creation of subject portals or in the sharing of cataloguing records of e-resources available through websites. This cooperation could, in time, extend beyond state and national boundaries in much the same way as the sharing of MARC (MACHINE-Readable Cataloguing) records has occurred. The technology is such that state or national boundaries are of little consequence provided there is a willingness to cooperate.

Guideline number 35

Identify and pursue opportunities to cooperate in the development of websites, especially in the provision of virtual library services.

2.6 Promotion

2.6.1 Site visibility

Promotion is crucial in ensuring that websites are accessible and easy to locate. The “visibility” of a website depends upon an effective promotional strategy, that operates both in the real and virtual worlds, being conceived and implemented.

Relevant promotion techniques in the virtual world include registering a domain name for a website and the use of descriptive titles and meta-tags so as to gain maximum placement in search engine listings. Other online promotion techniques include submitting the website to the search engines and directories and exchanging reciprocal links with other libraries and organisations.

Likewise there are a number of strategies that can be adopted to promote websites in the real world, such as:

- including the web address on all council and library letter head, notices, business cards and publications;

- including the web address in any council advertisements;
- including an insert about the website in any council bulk mailings, such as the issuing of rates notices;
- launching the website;
- issuing press releases when launching a website or when any significant new services are offered through a website;
- advertising in the media, such as local newspapers and community television;
- running banner advertising, such as bus and rail advertisements;
- running competitions through a website as an incentive for people to visit; and
- by providing useful content and services that people value word-of-mouth promotion will occur.

Guideline number 36

Develop and implement promotional strategies for websites that operate both in the real and virtual worlds.

2.6.2 Domain names

Many websites do not use an unique domain name. The selection and registration of an appropriate and easily recognisable domain name is a central part of a promotional strategy for a website. It is appropriate for stand-alone

libraries to be under their council's domain name in the following form:

www.yourcouncilname.nsw.gov.au

It may be appropriate for regional libraries, which provide library services across a number of local government areas, to use a domain name in the following form:

www.yourregionallibraryname.nsw.gov.au

Guidelines for domain names for Australian government were endorsed by the Online Council Ministers Meeting on 30 June 2000 and are available through the *Government Online* website.³⁷

Domain names can be registered at the *AU (Australian) Domain Registration Template* page on the Australian Network Information Center (AUNIC) website.³⁸ This form is specifically for *gov.au* domain names.

Not only are domain names critical to a promotional strategy they also enhance a website's accessibility. For example, due to the portable nature of domain names, users will still be able to access a website even if the site moves to a different Internet Service Provider (ISP) or server.

Standard domain names also have the added advantage of being memorable. Their structure is devised so as to act as a mnemonic device, that once recognised,

can be easy for people to recall later when they want to return to a website.

Guideline number 37

Select, register and use an unique website domain name.

2.6.3 Descriptors

Inside the 'head' element of HTML documents there are tags that can be used to promote websites or make them more accessible. These are the 'title' and the 'meta' elements. The effective use of these elements can improve search engine listings thereby resulting in more people visiting a site. This is an effective online promotional strategy when one considers that many users access websites from the major search engines or directories.

- Title

The title is one of the most critical design elements. The effective use of the 'title' element is valuable for internal management and becomes the text of a browser "bookmark" or "favorite" listing. It is therefore important that titles are clear, informative and avoid the use of meaningless generic descriptors, like "home page" or "library". It is a good idea to include the 'title' element on all pages with a consistent structure. For example, the 'title' element can be used to describe the responsible organisation and content of a page in the following form:

or alternatively a subject approach could be taken:

Services to public libraries - State Library of NSW

Guideline number 38

Always include clear and informative titles in the 'title' element within the 'head' element of all web pages.

- Metadata

The 'meta' element fields, which appear inside the 'head' element of web documents, allow a description of the contents of, and provide keywords for, web pages. A number of the search engines index the "keyword" and "description" 'meta' elements and some use the "description" 'meta' element as the site description that displays in search results. 'Meta' elements allow details, like authors, to be specified with an assigned value, in this case an author's name.

Metadata standards are emerging that can be used to ensure that 'meta' elements are coded consistently and effectively. Metadata is a means of describing the form and content of resources and is particularly useful in aiding the search process. In this respect it is an attempt to bring order to chaos. Guidelines developed by the National Library of

Australia state that metadata can be recorded by:

- *embedding it within the resource to which it relates; eg., as HTML metatags*
- *storing it in a data management database separate from but linked to the resource*
- *including it in a resource discovery service, such as a library catalogue, with a link to the resource.*³⁹

As part of the *Government Online Strategy* government agencies are required to create web-based Metadata records, that comply with the *Australian Government Locator Service* (AGLS) standard. The AGLS standard, developed by Federal, State and local governments, is being used by a number of government sites including *ServiceNSW*.⁴⁰ Information about the AGLS standard is available from the National Archives of Australia (NAA)⁴¹ and the standard itself is set out in the *AGLS Manual for Users*.⁴²

The AGLS standard, which is based on the *Dublin Core standard*, consists of nineteen elements with the following six elements being mandatory: creator, publisher, title, subject or function, date and identifier or availability. The AGLS standard identifies resources that should have Metadata records, such as home pages, pages that provide an actual online

service and major formal publications like annual reports and strategic plans. It is recommended that Metadata be included in the meta tags on at least the home page, all main section pages and pages that provide access to an actual service. Metadata is best applied at the same time as file creation for a website although many public libraries will need to apply metadata retrospectively to their sites.

An emerging Metadata standard is the *Dublin Core*⁴³ standard that provides a set of elements that can be used as metadata to describe web resources and services. The AGLS was initially modeled on the Dublin Core. A user guide for the Dublin Core is available.⁴⁴

Guideline number 39

Create Metadata records for key information resources and services, such as home pages, all main section pages and pages that provide access to an actual service; and use a Metadata standard, like the *Australian Government Locator Service (AGLS)*.

For more information on Metadata the National Library of Australia's *Meta Matters*⁴⁵ is an excellent place to start. IFLA also maintains a links page titled *Digital Libraries: Metadata Resources*.⁴⁶

The National Library of Australia (NLA) has published an application of the AGLS

standard available as part of their Metadata strategy.⁴⁷ The NLA has a links page to Metadata tools.⁴⁸ The NAA also provides links to a range of Metadata tools for creating and managing metadata.⁴⁹

2.6.4 Archiving

It is important that certain categories of information are maintained and archived for future use. For example, files made available through websites containing advice and information should be retained and archived. This is due to the fact that advice provided to clients at any one time could have future legal implications. The National Archives of Australia has a policy for keeping records of web-based activity in the Commonwealth Government.⁵⁰

Guideline number 40

Ensure that record keeping systems and procedures are in place so that copies of all web pages containing advice and information are retained and archived.

2.6.5 Quality assurance

Ensuring the quality of a website is an important aspect that supports website promotional strategies. Users will not return to a site that functions poorly or includes a large number of broken links. All HTML files should be tested to ensure their quality and to make sure all navigational aids are working correctly. Testing also allows an assessment of

ease of use and interface design from the user point of view should be made. To ensure the quality of a website consider the following:

- test the documents with a range of web browsers as page layout can be dramatically different when viewed in different browsers or in different versions of the same software;
- test files with the graphics disabled;
- test all hyperlinks;
- run all pages through HTML and accessibility validation services; and
- test again after any changes are made.

Checking links is particularly important. From a user viewpoint broken links are extremely frustrating and impact on the usefulness of a website. It is therefore important that directory structures are designed to accommodate future growth and that careful consideration should be made before relocating or removing files.

Software packages are available that automate link checking and provide a report on any broken links. For example, LinkBot, from Watchfire,⁵¹ is a link checker and HTML validator that can scan a site for more than fifty potential problems, including broken links, incorrect HTML and slow-loading pages. Link checking should be done before loading pages and on a regular basis, especially if a website includes documents containing links to

external documents. Web pages should also be checked to ensure that they still function when CSS, scripts, applets or other programmatic objects are turned off or disabled.

Another important aspect of ensuring quality is to maintain and review the information and services available through a website on an ongoing basis. It may be useful to maintain a schedule of pages that need to be updated or archived. The content of a site has implications for the levels of maintenance required as a small website containing minimum information about a library will require a smaller commitment than a website containing news items and interactive services.

Another aid to quality assurance is to conduct regular user surveys to solicit input for the continuous improvement of a website.

Guideline number 41

Implement quality assurance procedures so as to ensure a website meets high quality standards.

2.6.6 Master version

A master version of a website should always be maintained and stored away from the web server. The master version can be used for editing purposes prior to loading new or updated files and to aid

recovery if the live version is corrupted or lost.

A master version can also be used to identify files for archiving at any point in time so that the information is not “lost” through changes to a document.

Guideline number 42 _____

Maintain a separate master version of a website in addition to the live version.

SECTION 3

Further reading

Some of the standards and guidelines identified in this paper are useful to public libraries in creating and evolving their websites. They would also allow libraries to build on the guidelines so as to meet their unique local needs.

The National Library of Australia has produced a range of guidelines⁵² designed to assist libraries in relation to electronic information delivery. The *Guidelines for the Content of Library websites*⁵³ are an attempt to assist libraries to create and develop websites that contain the information their users require. *Safeguarding Australia's web resources: guidelines for creators and publishers*⁵⁴ provide advice on creating, describing, naming and managing web resources to facilitate their on-going use. *Managing Web Resources for Persistent Access*⁵⁵ provides guidelines to assist those responsible for the management of online materials to make sure links made to resources continue to work into the future.

Standards in digital preservation techniques are available at the National Library's *PADI (Preserving Access to Digital Information)* website.⁵⁶

The National Office for the Information Economy has published the *Guide to Minimum Website Standards*.⁵⁷ This document references the set of standards and guidelines specified in the Commonwealth Government's online strategy.⁵⁸ This strategy is designed to ensure that Commonwealth Government websites are designed to a consistent and high standard. The standards and guidelines address the following issues: information provision, electronic publishing, metadata, electronic record keeping and archiving, accessibility, security, privacy and authentication. For example, the Commonwealth Department of Finance and Administration has produced guidelines for information published in electronic formats.⁵⁹ Links to the standards and guidelines are also available through the *Government Online standards page*.⁶⁰

The NSW Government Office of Information Technology (OIT) have also issued guidelines titled *Provision of Information and Services using the Internet*⁶¹ that would be of assistance to public libraries.

Other Governments around the world have also published guidelines for websites. The United Kingdom Government has published guidelines for government websites;⁶² the Canadian Government has

produced an *Internet Guide*,⁶³ and the New Zealand Government has produced draft guidelines for public sector websites.⁶⁴

SECTION 4

Conclusion

A website will increasingly be a key point for providing library services. A virtual library service will support the delivery of both traditional library services and a range of new services. The key to an effective website service point is good content and design for service delivery.

It is the intention that the guidelines outlined in this document will provide a framework to aid public libraries in planning, developing, implementing and managing their websites. While the content and style of public libraries websites may vary greatly, the development and management of the sites should be based on sound technical features and good management practices.

These guidelines will need to evolve as technologies change and new solutions are identified. It is intended to publish an interactive version of these guidelines on the State Library of NSW website.

SECTION 5

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