



Llyfrgell Genedlaethol Cymru
The National Library of Wales
Aberystwyth

share

collaborate

innovate

A Strategy for the Web

2009 - 11

1. The Strategy

1.1. Mission Statement and Goals

Online access represents a key element of the Library's service delivery framework, providing immediate access to information and digital resources for users across the world. Our mission is:

To share, collaborate and innovate in the delivery of online content reflecting the Library's diverse activities and collections.

This mission, and the objectives within this strategy, have been informed by detailed research into the Library's current websites and content and the trends and opportunities offered by Web 2.0. As well as fulfilling specific aims, this strategy is explicitly designed to support the growth and development of innovative services which are intended to extend beyond those detailed below through the delivery of an open, effective and enabling web platform.

By publishing this strategy the Library is making clear its intention to deliver its online services at the forefront of innovation and its commitment to building and maintaining a collaborative relationship with users and content partners. By realising this mission, we are seeking to achieve the following aims:

- Provide a web delivery platform which integrates Web 2.0 approaches and supports the growth of future web technologies
- Deliver immediate improvements for existing users of the Library's websites
- Continue to extend the Library's reach, providing access to the collections from across the world
- Increase understanding of the collections, services, and activities of the Library
- Increase personal connections between the public and the Library

1.2. Purpose

In 2003 the Library approved its first Web Strategy, setting out the requirements for a new, devolved, way of adding content to the Library's main website and Intranet. The result of this strategy was the implementation of the Typo3 Content Management Systems (CMS) which provided for the growth and development of the Library's web content during the following six years.

This strategy represents the Library's desire to improve and consolidate our considerable diversity of Web content into an efficient, coherent and innovative environment for our users. The strategy defines the Library's approach to all of it's

web content, regardless of location or infrastructure, in order to promote continuity for our users.

Secondly, the strategy lays out the ways in which Web 2.0 and future technologies will fit with our existing content and details the approaches which the Library will implement over the next three years. This need for increased engagement with Web 2.0 technologies and approaches was identified in the Library's 2008-9 to 2010-11 Strategy *Shaping the Future* and is reflected in both the Library's growing 'Web 2.0' activity and through many other strategies (see Section 6.3).

1.3. Structure

Rather than seeking to detail the Library's existing websites, this strategy outlines the key objectives for our entire web content over the next three years. *For the purposes of this document, the Library's web content is defined as any and all information provided by the Library's staff (in the course of business), or at the Library's direction, via the World Wide Web regardless of platform, responsibility or hosting.*

We will promote renewed engagement with our user community through five key enabling objectives: **Create Spaces for Innovation; Collaborate With Our Users; Share Our Content; Deliver Usable, Efficient and Effective Services; and Build for the Future.**

These Strategic Objectives will be realised by successfully achieving a variety of individual goals, and each goal is defined in Section 2: Strategic Objectives. The resources required to achieve these objectives are detailed in Section 3: Skills and Resources.

Section 4: Measuring Our Success outlines the ways in which these objectives, and specific goals, can be evaluated and the expected impacts which these objectives will have on our Web portfolio. Section 5: Risks details possible outcomes which might impact the delivery of the Strategic Objectives and the steps taken to mitigate against them.

Finally, Section 6: Strategic Relationships details the internal and external strategic framework and how this strategy relates to other relevant documents.

1.4. Responsibilities and Review

This strategy has been developed under the guidance of the Library's Web Panel. This group is responsible for the successful delivery of the strategy and for its revision in 2011. This group will also report on progress to the Library's Information Systems Strategy Committee.

Implementation of the strategy is the responsibility of the Library's Web Team and other staff as appropriate. The implementation of the strategy will be formally reviewed annually by the Library's Web Panel and revised, as appropriate, in response to changes in technologies and other relevant factors.

2. Strategic Objectives

Strategic Objective 1: Create Spaces for Innovation

1.1. Blogging

The Library's existing web content does not adequately expose the expert, creative and innovative work being conducted by our staff. We will immediately begin a programme of creating information pages describing projects currently underway in the Library.

We will implement an externally-hosted and fully bilingual blogging environment for the creation of a number of blogs by Library staff. Initially, this will include a "Library News" blog, managed by the Promotion and Interpretation Section along with a blog for the Kyffin Williams Bequest Project¹.

In addition, we will support the development of blogs for teams, functions and projects within the Library. These blogs will be identified and developed collaboratively with staff across the Library who will commit to creating posts, moderating and managing the blog for at least 18 months. Staff will be required to work within relevant guidelines and will be fully supported by the Web Team.

Where content streams are identified as not being suitable for 'blog'-type distribution we will work with contributors to discuss alternative propositions including social networking pages and microblogging services such as Twitter.

Responsible:	<u>Promotion and Interpretation</u> , Digital Developments
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1.2. An Interpretive Digital Exhibition Space

The Library's "Digital Mirror" represents a significant contribution to the Library's web presence and an important way of accessing our digital collections in an interpretive environment. The level of material available has reached a critical mass, developing over the past 9 years alongside the growth of the Library's digitisation programme.

Much of this content is at risk from becoming out of date or of being 'hidden' deep within the structure of the website. We will review, rework and rationalise the existing Digital Mirror content into a permanent digital exhibition space, within the CMS, which will complement the powerful searching capabilities of the Library's catalogue by providing an interpretive environment for introducing the collections and role of the National Library and an attractive element of the site for first-time visitors.

We will make significant use of Web 2.0 technologies to ensure a cutting-edge user experience. This digital exhibition will also become the environment for delivering

¹ <http://www.llgc.org.uk/index.php?id=3594>

future interactive services, beginning with the integration of teacher-focused education resources and 'build-a-lesson-plan' functionality.

Responsible:	<u>Promotion and Interpretation, Digital Developments, ICT</u>
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1.3. A Structure for Development

The current structure of the Library's website does not provide maximum impact for either first time or returning users. We will immediately begin to rework the front page of the main Library website to remove duplication, make better use of space and reflect the key services available via the site.

We will identify and determine 'landing pages' which are particularly popular entry points for users reaching the site via Search Engines. We will improve the content on these pages and increase the links to other relevant areas of content in order to best keep users on the site.

To better reflect the types of information and audiences we have, existing content will be restructured into three complementary areas:

- User-Focused Content: Existing pages from the web which are of immediate interest to the public.
- A Professional Portal: Corporate and professional information which are of interest to specific groups.
- Reader-Focused Content: An initially small sub-portal which is written explicitly for present visitors to the Library. Containing information about, and supporting the promotion of, in-house facilities such as exhibitions, events, Pen Dinas and the Library Shop. This sub-portal will be available directly for users of the Wifi network and catalogue room machines and will become an environment for the future delivery of in-house electronic services.

We will improve the long-term usability of the site by immediately implementing a semantic (human-readable) URL structure providing 'friendly' URLs which staff will be encouraged to use in their communications and which will support marketing campaigns. We will ensure that existing URLs are kept valid but will also create an 'intelligent' error page and seek to redirect lost users to popular content, encouraging them to continue their journey within our web content.

Finally, we will optimise all our content for Search Engine discovery and mobile navigation, and ensure that our catalogue records are available within popular search engines. We will manage our presence within these indexes and will ensure that search entries link to appropriate and useful content.

Responsible:	<u>Promotion and Interpretation, ICT, All</u>
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1.4. Future-Focused Content

We will build upon the existing design and layout of the Library's website and iPortal by commissioning updated Typo3 template files which will better support a consistent structure for pages in the Library's CMS and simplify the creation of content by contributors across the Library.

We will increase usability and continuity across the Library's web content by creating a flexible design package, specifying the general layouts, naming schemes, colour schemes and other brand elements to be used in the creation of future web content in the CMS, Web 2.0 and other web environments. We will ensure that the design package takes account for joint-branding requirements when working with partner organisations and funding bodies and that it meets the diverse needs of our varying content types. Our primary aim will be to ensure that users are always aware that they are interacting with the Library. This design package will be shared with any external developers of web content and with staff responsible for creating content in Web 2.0 environments.

We will also improve the quality of existing content by embedding more multimedia objects into existing pages using flash image galleries, audio recordings and video to enhance user experience. Where geographical data exists, we will work closely with metadata experts to exploit this data to create geographical navigation and other GIS elements within web content.

Responsible:	<u>Promotion and Interpretation, ICT</u>
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1.5. Catalogue Integration

The implementation of the VTLS Library Management System, Virtua, has provided our readers with the ability to search across the entire of the Library's collections. Furthermore, the implementation of the Aquabrowser discovery platform during 2009 will provide a new way of accessing these resources. Successful complimentary branding has meant that users do not draw a distinction between the current catalogue and the website, viewing the Library's services as fully integrated.

Building on this, we will improve the links between the catalogue and the website, using the full capacity of software solutions to embed searches into relevant content pages and dynamically bringing content from the catalogue into the CMS. We will also work with the Reader Services, Computers and Systems sections to ensure continuity of terminology, design and approach when implementing the Aquabrowser and future resource discovery mechanisms.

Responsible:	<u>Promotion and Interpretation, Systems, ICT</u>
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Strategic Objective 2: Collaborate With Our Users

2.1. Develop Interactive Services

We will encourage users to interact with our site by integrating and developing active content (including Education and E-Commerce applications) within the CMS and link these elements directly to relevant pages through the use of “Activity” boxes encouraging users to navigate between elements of the Library’s website.

We will work in co-operation with relevant sections to re-develop the Education and E-Commerce functions of the website into key content areas within the Library’s CMS and mainstream these content areas by linking them to other relevant pages across the Library’s web portfolio.

Responsible:	<u>Promotion and Interpretation</u> , ICT, Digital Developments, Administration and Business
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2.2. Support a Discussion Across the Web

We believe that the development of ‘comment’-type services on our own website will lead to a fracturing of the conversation between ourselves and our users, and will undermine the potential for dialogue between different users.

Instead, we will use backlinks, trackbacks, and hashtags to draw in discussion relating to our content from blogs, social networking sites and other Web 2.0 environments and embed these links into relevant pages of the Website.

We will encourage users to make use of external social networking, blogging and publishing mechanisms to talk about the Library and will offer them simple guidance on how to do so.

Responsible:	<u>Promotion and Interpretation</u> , <u>ICT</u>
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2.3. Bring In External Content to Enhance Our Resources

We envision our content as part of the wider web of information available to the public in line with the Library’s Cataloguing Strategy. We will seek to make use of this network by making use of external data stores and suitable APIs to enhance our own content with high-quality information from other organisations, individuals and Web 2.0 environments.

Responsible:	<u>Systems</u> , ICT, Bibliographic Data, Archival Data
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2.4. Crowdsourcing

We realise that our users represent our most valuable resource and we will strive to create personal connections with them whenever possible. We will reuse anonymous data collected by our CMS and library management system to better support their searching and resource discovery and will encourage users to contribute to our activity, and to the selection of material for digitisation in line with the Library's Digitisation Strategy.

We support the Library's Cataloguing Strategy by working in co-operation with users to enhance existing catalogue records and to provide facilities for users to access un-catalogued material and to become involved in the cataloguing process.

Responsible:	<u>Digital Developments</u> , <u>Systems</u> , ICT, Bibliographic Data, Archival Data
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2.5. Exploit External Points of Presence

We will become participants in Web 2.0 environments by exploiting the potential of external points of presence. We will seek to grow our content on social networks and other popular environments, providing a valuable promotion stream and encouraging users to connect with us.

We will build a substantial portal for the collections through relevant Web 2.0 environments, building on the existing work with Wikipedia² and the Flickr Commons³ in order to expose our content in appropriate and prominent environments.

We will take responsibility for our reputation by engaging, as appropriate, with external web communities and by ensuring that information about the Library is accurate, up to date and balanced. We will not seek to influence particular communities from the outside but will instead become equal participants in relevant discussions.

Responsible:	<u>Promotion and Interpretation</u> , <u>Digital Developments</u>
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Strategic Objective 3: Share Our Content

3.1. License Our Digital Objects For Free and Simple Reuse

We already provide free reuse of some of our digital images to a variety of communities, through agreements with organisations (such as the National Grid for Learning) and through individual projects (such as the Library's 'Wikipedia' pilot).

² http://cy.wikipedia.org/wiki/Defnyddiwr:Llyfrgell_Genedlaethol_Cymru

³ <http://www.flickr.com/photos/llgc/>

The Library recognises that the digital collections exist for the benefit of all of Wales and we will encourage the use and reuse of these collections. In the future, we will share our digital objects for free non-commercial reuse under a license which requires attribution of the Library as the rights holder for the material.

We will develop mechanisms for the simple embedding of our digital resources in Blogs, Wikis, Websites and Virtual Learning Environments in order to encourage users to become *reusers*.

We will share objects only at an appropriate resolution and we will endeavour to provide value-added services (such as higher quality images, or physical prints and copies) in line with the Library's Income Generation Plan. Our default position will be to openly share the collections, and we will only restrict the use of material where we do not hold the rights to share it.

Responsible:	<u>Digital Developments</u> , ICT Bibliographic Data, Archival Data
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3.2. Build an API for Public Development

We recognise that for future web services to make effective use of the Library's resources we must share our data in a semantic and machine-readable way. However, we also recognise that creating such a resource requires an engaged audience with the capacity to build services based upon our systems.

We will, therefore, work in partnership with potential users of these services to develop Application Programming Interfaces (APIs) which are of direct interest to the community. We will seek external funding, in co-operation with these user communities, to build and provide examples to future users.

We will follow the recommendations of the JISC "Good APIs"⁴ report and develop APIs which are both sustainable and useful to our participant communities. Where possible we will promote the reuse of APIs available from external services (such as Flickr, or the Peoples' Collection).

Responsible:	<u>Systems</u> , <u>ICT</u>
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3.3. Share Our Events Digitally

We will seek the rights to record and provide online talks and other events from the Drwm and to create a portfolio of past events to showcase the wide variety of events held at the Library. We will use external sites to host and provide access to this material wherever possible.

We will ensure that future Library events are 'amplified' by recording them in audio or video form, by collecting papers, presentations or transcripts and by providing this

⁴ <http://blogs.ukoln.ac.uk/good-apis-jisc/>

content on the Web within 5 days of the event. We will, where possible, record simultaneous translation or provide bilingual transcripts of events however we will not withhold content from the web where it only exists in one language.

We will continue to make substantial use of Web 2.0 environments, such as YouTube, to host and provide access to this material to users who might not think to visit the Library's website.

Responsible:	<u>Promotion and Interpretation, NSSAW, All</u>
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3.4. Share Our Intellectual Output

We recognise that a large proportion of the Library's output is not publicly accessible and that this situation has precluded understanding of our collections, role and activity. We will encourage users to make use of the authoritative and accurate information available on our website by immediately licensing all written content created by the Library under a Creative Commons "Attribution-NonCommercial" license.

We will also encourage staff to produce 'Web Ready' content and reduce the number of PDF, Microsoft Word and other non-Web formats in public-focused areas of our website.

Alongside the deliberate production of content for the web, we will seek to share appropriate documents and presentation files in their raw form through the Professional Portal and will, where possible, share this content for reuse.

We will share our catalogue metadata as rights and resources allow in order to increase awareness and encourage use of our physical collections.

Responsible:	<u>Promotion and Interpretation, All</u>
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Strategic Objective 4: Deliver Usable, Efficient and Effective Services

4.1. Determine a Core Infrastructure and Develop Within It

The current web infrastructure within the Library reflects the substantial and sustained growth in our provision of web-based services over the past 13 years. In order to effectively develop new user-focused approaches we must consolidate our development environment around the Library's core infrastructure.

We will appraise all existing environments and categorise them as follows:

- Category A: Sites which are current, and which are resourced into the future.
- Category B: Sites where responsibility and resources for development and updating exist.

- Category C: Sites which have unique functionality but which are no longer resourced.
- Category D: Sites which contain unique content but which are no longer resourced.

We will implement a programme of consolidation and rationalisation of these sites, moving Category A & B sites immediately into the core infrastructure and recycling content and functionality from Category C & D sites as resources allow.

We will ensure that all future developments are based around these environments. This approach will lead to a more efficient use of resources and the development of new functionalities which are applicable across our entire web content.

As a direct result of this we will also grow the skills of staff in relation to our core systems and increase our capacity into the future.

Responsible:	<u>Promotion and Interpretation, Digital Developments, Systems, ICT, Bibliographic Data, Archival Data</u>
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4.2. Provide Effective Support for Contributors

The Library has a network of over 90 contributors from across the organisation, who create content for the Library’s website and who take responsibility for the updating and development of that content. We will seek to increase the efficiency of this process by simplifying the workflow for adding content via the CMS (including through the commissioning of more defined page templates).

We will continue the practice of devolving power and responsibility for content creation by allowing relevant contributors to publish directly to specific areas of the Library’s Website. In addition we will better define the roles and responsibilities of staff involved in the creation of web content and of key Web Team staff (see Appendix B).

Responsible:	<u>Promotion and Interpretation, ICT, All</u>
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4.3. Continue to Be an Example of Best Practice for Bilingual, Accessible, Web Services

The Library recognises that our web content is used by a wide variety of users in a myriad of different ways. We accept that we will never be able to fully satisfy all user requirements and believe that making content available is preferable to withholding it.

We will continue to provide a fully-bilingual web presence and, where we are only able to provide or link to content in one language (for example, with external documents) we will clearly mark this. We recognise that certain Web 2.0 environments may not be available bilingually and in these instances we will seek to provide services in the most appropriate language(s) for our users.

When contact has been initiated, we will communicate with online communities in the language of their choice and we will always welcome contact in both Welsh and English. When we initiate contact with a particular service we will generally provide our information bilingually, and will respond to the needs of the community in future discussions.

The Library will continue to be an example of best practice among bilingual organisations and to promote the use of the Welsh language, developing new ways of delivering bilingual services. In addition, we will work in collaboration with the Welsh Language Board to develop and implement guidelines for bilingual organisations in Web 2.0 environments.

We will employ web technologies, wherever possible, to create new ways of accessing our content and will investigate the application of speech and language support technologies (such as Vocab) and the use of audio and video to reach audience with different requirements.

We will take a clear approach to accessibility, and will define our intentions on our website. We will design with accessibility in mind and will work with relevant communities through the Library's existing relationships with representative bodies and organisations. We will seek to provide our core data in line with the Web Content Accessibility Guidelines version 2.0⁵ and will judge our success based on these criteria.

We will seek to use recognised standards where possible, however we will not preclude ourselves from using de facto or emerging standards to deliver our information.

Responsible:	<u>Promotion and Interpretation, Digital Developments, Systems, ICT</u>
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4.4. Understand and Respond to Our Users

We will work closely with staff across the Library in seeking to better understand our users, and will use this understanding to improve the services we offer to them via the web. We will run combined usability studies with appropriate sections within the Library in order to enhance our qualitative understanding of how particular user groups interact with our web content.

We will improve our statistics gathering to ensure that they provide us with the capability to measure and understands patterns of usage. We will augment our current statistics with short-term goal-orientated measures which will allow the Library to measure the impact of particular campaigns and approaches.

We will take key statistics from the Library's website and catalogue to produce a 'Zeitgeist' report⁶ for public consumption which outlines the key trends in our usage

⁵ <http://www.w3.org/TR/WCAG20/>

⁶ <http://www.google.com/zeitgeist>

and we will share interpreted statistics with staff across the Library in order to enable them to better understand the way in which users access our resources.

We will replace the existing User Questionnaire with a simplified feedback system based around the question “Did you find this useful?” We will encourage feedback from users on a page-by-page basis and will give the option for detailed feedback but we will not ask multiple questions.

Responsible:	<u>Promotion and Interpretation, Reader Services, ICT</u>
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4.5. A Straight-Forward Communication Model

We will work closely with the Enquiries team to improve the provision of relevant information through the website. We will support the implementation of a single contact point for all of the Library’s web content.

We will replace all existing contact information, and ‘general’ contact addresses on all Library web material with this contact point to remove the need for enquiries to be passed between individuals and better support the user experience. The contact workflow will point users to individuals contact details when relevant in order to support the work of the telephone switchboard.

By drawing key question groups from existing data we will build a step-based contact environment aiming to pre-answer common enquiries and to recycle the content created by the Enquiries team for public consumption.

We will also work in co-operation with the Enquiries Team, Systems and Computers Section to integrate best-practices in terms of technology into their delivery of user-support, including the provision of chat and screen-sharing services.

Responsible:	<u>Reader Services, ICT, All</u>
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Strategic Objective 5: Build For the Future

5.1. Improve Internal Communications

We understand that one of the most effective applications of Web and Web 2.0 technologies is in increasing internal efficiency. We will support the day-to-day work of the Library by developing the Intranet into an effective environment for communication and collaboration by staff.

We will combine all of the Internal web architectures (including the Intranet, Ecstranet and Twiki) into a single Wiki for use by all staff. We will redevelop the *Organisational Chart* and *Phone and Email Search* functions into a single ‘Staff Information’ space where staff will be able to share more information about themselves and their work.

We will ensure the integrity of existing content related to policies and other support information whilst also encouraging the development of project, team and function –

based content areas within the Wiki to encourage the incubation of new ideas and the sharing of information. We will also seek to integrate the Wiki with the Wisdom EDRMS in order to ensure that files and documents are stored and managed appropriately.

We will facilitate the creation of internal or staff-only blogs which will be used to share information between groups and we will explore and implement a 'microblogging' solution for optional use by staff in order to share activity between diverse teams.

We will encourage the use of video to share internal presentations and will support the hosting of this rich content on the new Intranet wiki.

Responsible:	<u>Promotion and Interpretation, ICT, All</u>
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5.2. Skills & Training

We recognise that the move towards a Web 2.0 approach will require substantial skills development from staff involved in both creating and maintaining the Library's web presence. Over the course of this strategy we will invest in the Web Team by developing skills in relation to the systems and technologies used in the Library, as well as in practical website management.

However, we realise that to become truly effective we will require staff to innovate and develop collaboratively. To support this we will work with the Training Unit to embed self-development into the workplans of relevant staff and encourage the sharing of new approaches through regular information sessions.

We will seek to pass or develop relevant skills to contributors, including the use of rich media such as video and encourage them to exploit the full potential of the CMS.

Moreover, 'Library 2.0' has the potential to support widespread innovation and we will support the skills development of staff at all levels by enacting a bespoke programme of practical training based on the "23 things" model⁷.

Responsible:	<u>Training, Promotion and Interpretation</u>
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5.3. Prepare for the Semantic Web

The use of structured data to enable programmatic sharing of content is likely to be a significant part of future ('Web 3.0') developments and this approach is already finding real applications in the Science and Technology arenas. We note that large metadata stores (such as OCLC) are likely to be able to offer functionality in the cultural-information area but, nevertheless, we recognise that the Library has the potential to make a significant contribution to machine-to-machine dialogue.

⁷ http://stephenslighthouse.sirsidynix.com/archives/2008/02/the_23_things_1.html

We have already identified areas to which such technologies might be readily applied (including to our MARC and METS data, as well as to the XML-based metadata created as part of the digitisation process and development of Welsh Biography Online).

We will seek partnerships with those who might exploit our data in this way in order to explore appropriate developments which will increase the availability of both our metadata and our digital content.

Responsible:	<u>Systems, ICT</u>
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5.4. Rights for Sharing

The Library is well placed to share our existing collections with users and partner organisations, however there are still some parts of the collections which are subject to complex and restrictive intellectual property agreements.

In the future, we will endeavour to negotiate open rights for existing and incoming material in order to better service our user community. Where such rights do not exist we will endeavour to make clear to the public where the rights lie.

Responsible:	<u>Acquisitions</u> , Digital Developments, Promotion and Interpretation
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5.5. Support and Encourage Staff in Their Personal Digital Development

Creative and innovative staff are essential to the ethos of 'Web 2.0' and we wish to support and encourage staff in their own personal engagement with digital technologies. We recognise that by expecting our users to engage with new approaches to our collections we should also be encouraging our staff to do the same.

We will, therefore, support staff who might wish to make use of blogging, microblogging, social networking and other technologies to talk about their life and recognise that their work represents an important part of their life journey.

We will expect staff to abide by existing and future guidelines, to respect confidentiality and to recognise that their conduct on the web is subject to the same requirements as their conduct in the physical world. However, we will not seek to prevent or discourage staff from interacting in this way.

Responsible:	<u>All</u>
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3. Skills and Resources

The successful implementation of this strategy is largely dependent upon innovation in the way we approach our web presence rather than requiring significant capital investment.

3.1. Key Resources

The principle of extending content creation and publication responsibility to 'Contributors' across the Library is extended by this strategy and as a result more staff across the organisation will be able to contribute to our public website.

To support this distributed process the Library will be bringing together core staff currently responsible for the Web into a single Web Unit, under the ICT section. This new unit will consist of the current technical staff and the Library's 'e-editor' whose roles will be redefined as appropriate to better fit this new structure.

This unit will work under the direction of the Head of ICT to achieve the aims of this strategy by working in partnership with content producing staff from across the Library.

The Director of Public Services will be responsible for the strategic leadership of this web, working closely with the Head of Promotion and Interpretation and the Head of ICT to monitor the implementation and opportunities in this area.

3.2. More Efficient and Effective Working

In order to achieve the aims of this strategy we must free up existing resources and many of the Strategic Objectives provide significant savings in terms of the time spent to create and maintain resources.

Consolidation

By consolidating our resources onto a single core platform we will be able to immediately make savings in terms of maintenance and support whilst also improving the public's ability to navigate across our content. By no longer creating 'microsites' we will be able to reduce duplication, ensure that training and support is uniform and increase the capacity of staff to work in different areas of our Web content.

A Core Infrastructure

Identifying and using a single infrastructure, consisting of multiple core Library systems, we will be able to ensure that future development is co-ordinated and efficient. Furthermore, the skills of existing staff can be expanded in direct response to this infrastructure – ensuring our ability to develop services efficiently into the future.

Design and Brand

Commissioning a single design package, revised templates and supporting brand continuity across our entire web content will enable us to better make use of project resources to develop new functionality which can be applied across all relevant pages.

In turn, our ability to implement – or support third party implementations – of the brand package will grow rapidly with use, allowing us to better make use of these resources.

By retaining our existing design, making iterative changes as required rather than opting for a major ‘re-design’ we can improve the usability of our web presence over the longer term – and ensure that the Library’s core brand is reflected in all of our content, online or offline.

External Services

By using external Web 2.0 environments (including Social Networking Sites, blogging platforms and media-sharing sites such as YouTube and Flickr) we will be able to provide enhanced services without taking on maintenance and support costs. Whilst resources will still be required to create content, moderate communication and manage these services such work can be undertaken by content-focused staff, freeing up technical resources for in-house developments.

3.3. Opportunities for Utilising and Raising Additional Resources

Wider Project Resources

In addition to the Key Resources identified above, it is likely that additional resources will be required to undertake specific developments or projects. In the past, Web development has been distributed between the Web Team, external suppliers and digitisation project staff.

This strategy will support these forms of work, however with the shift to a core infrastructure and the use of a single design package we must be aware of the potential for utilising such project-specific developments to support wider requirements. In many cases it is likely that a new ‘feature’ or ‘function’ could be reused to improve other content elements within the Library’s website.

Web Projects

In the past we have sought to fund general web developments from within the Library’s core funding, however with the shift towards the use of leading-edge approaches and technologies we now have the opportunity to seek funding for specific projects (including elements of this strategy) from relevant funding bodies.

We recognise that the usability and functionality of interfaces has a significant impact on the way in which a resource is viewed and utilised. Future 'small bid' applications centred on building or developing new features in collaboration with the Library's Fundraising Unit will enable us to achieve defined objectives without having to draw on the Library's core funds.

As part of the daily work of the Web Team, specific test-projects should be identified which can be undertaken by temporary staff. We will work in close contact with relevant HE and FE departments to support short-term internships and collaborative exercises which will provide mutual benefit.

Partnerships

Working with other organisations, in Wales and across the world, will enable us to achieve far more than we could on our own. In order to resource significant developments we will seek out relevant organisations who might wish to co-develop functionality or who might be able to provide significant support from the perspective of users or other relevant groups.

We will seek recognition as a successful collaborator on Web-related projects and will use this reputation to forge new partnerships and to drive forward new funding proposals to relevant bodies in collaboration.

4. Measuring Our Success

The following information describes how we will seek to evaluate the success of the strategy's implementation, and the impact of changes we make. We have selected a range of qualitative and quantitative indicators which will provide valuable insights as the strategy evolves, however we recognise that such indicators may be superseded during the implementation period. As a result, evaluating and updating these measures will be an important element of the annual review process.

4.1. Statistics

The Library currently collects and analyses a wide range of statistical information related to the use of its Web content. As part of Strategic Objective 4: Deliver Usable, Efficient and Effective Services the Library will evaluate these to produce 'zeitgeist' reports of key trends which will provide valuable information for delivering and developing services.

As part of the implementation of this strategy we will increase the accuracy of our statistics gathering and analysis and as a result we anticipate that there will be changes in total number of users and hits. Nevertheless, we will endeavour to use a number of statistical indicators and trends to evaluate the effectiveness of this strategy.

4.1.1. Positive Feedback Responses

Following the implementation of a simple feedback mechanism we will collect and appraise responses in order to ensure that the feedback from any individual page does not drop below 80% positive, and that the average feedback level for the site is above 90% positive. We will also monitor qualitative feedback and respond in line with the Library's Communications Strategy.

4.1.2. Bounce Rates

The Bounce Rate (the number of 'single page visits' divided by the number of entries on a particular page) is an indicator of the effectiveness of our content in encouraging users to remain on the site, rather than to leave directly from the page they enter the site. Although we recognise that effective search engine indexing may mean that users gain immediate access to the content they require we will measure our success by our ability to keep users on the site by offering inter-linked relevant content.

By the end of 2011-12 we will have reduced the 'Bounce Rate' for pages on the site to the following levels:

Library Home Page	<20%
Landing Pages	<30%
Average of All Pages	<50%

4.1.3. Landing Pages

The Library will determine a maximum of 15 'Landing Pages' which will be given detailed attention in terms of both content and search engine optimisation. By 2011-12 these landing pages will account for 20% of our total entry statistics (not including the Library's Home Page).

4.1.4. Error Page Hits

The Library's error pages currently account for a significant proportion of the views of the Library's main website. In addition, it is the major entry and exit point for the site. By 2011-12 we will have reduced the number of views to less than 5% of the total page views on the site, and will have reduced the number of entries to this page to less than 1% of the total number of visits to the website.

4.1.5. Goal Conversion

Throughout the life of this strategy we will identify key 'goals' within the site (such as viewing the latest news items, registration for a Readers Ticket, ordering Drwm tickets, purchasing from the shop, and viewing specific pages). We will evaluate the hits on these pages in order to judge the success of our structure over the life of this strategy.

4.1.6. 'Active Interactions'

We will keep special account of the use of opportunities for interaction by our users (for example: becoming a Facebook 'Friend', playing a game on the Library's website, using an interactive object, leaving a comment or tag on the Library's web content). We will seek to grow the number of these 'Active Interactions' by a rate of 200% per annum.

4.1.7. Key Performance Indicators (KPIs)

Every quarter, the Library provides a number of Key Performance Indicators, including information about the use of our web content, to the Welsh Assembly Government as part of our formal reporting process. Throughout the life of this strategy we will meet or exceed the levels of hits and unique users defined in our Key Performance Indicators.

4.1.8. Physical visits

Through close co-operation with other parts of the Public Services Department we will identify the number of physical visitors who used our online content before visiting the Library. We will measure our success by the growth of both the proportion of web users who visit the Library in person and the use of Web content in order to prepare for visits.

4.2. Search Engine Rankings

As part of the goal of providing Search Engine Optimised content, we will monitor search engine rankings on the most popular search engines for key terms in both Welsh and English. We will seek that the Library's content is placed appropriately for key terms (which will be selected and updated by the Library's Web Panel).

We will have achieved the following ranks on major search engines by 2011-12:

	Single Term	Combined Terms
First Link	5%	10%
First Three Links	30%	50%
First Page of Links	50%	70%

4.3. Qualitative Feedback

The Library currently has no formal mechanism for qualitatively assessing user expectations and experiences. The Communication Policy and Strategy 2009-11 has identified the goal of "developing methods of finding out about our audiences and evaluating the success of our promotional methods" and the successful growth of the Library's knowledge about our online users and the delivery of services which meet the needs of these groups will be seen as a measure of the success of this strategy.

4.4. Wider Success of Strategy

Whilst there will be many tangible benefits to the implementation of this strategy, we recognise that wider change will be an important impact of re-envisioning our approach to the Web and our communication with our users through online environments and media. Therefore, we also will judge the strategy's success on wider efficiencies and developments both in terms of staff activity and changes in approaches to content delivery.

These areas are likely to include:

- Improved Web and Web 2.0-related skills in staff across the Library
- Increased innovation in the construction and delivery of Web Content
- More efficient answering of enquiries
- More content written about the Library and our collections on the Web
- Better awareness of the of the Library and our services in general (for example as evidenced by the annual Beaufort reports)

5. Risks

5.1. Not Adopting this Strategy

If the Library fails to adopt the strategy, in whole or in part, we run the risk of continuing to produce fractured and inconsistent content. Moreover, we will be forced to maintain aging and increasingly inaccurate microsites which will become even more resource-intensive over time.

By far the largest risk of not adopting this strategy is the potential for the Library to appear irrelevant within the increasingly interactive and open Web environment. At present the Library's web content accounts for a significant element of our usage – if we fail to move forward into new Web 2.0 environments we will be failing our online user community.

5.2. Failing to Determine or Utilise a Core Infrastructure

This strategy lays the foundations for improving all of our web provision through the utilisation of a core infrastructure of Library systems in combination with external services. Should we fail to determine or use such an infrastructure we will only be able to develop forward-thinking services for specific applications – and will lose the wider impact.

Furthermore, we will fail to take advantage of the potential for more efficient application of our existing resources and will therefore undermine our potential to achieve all the goals of the strategy.

5.3. Selecting A Non-Sustainable Web 2.0 Service

Whilst utilising external Web 2.0 services provides many advantages, most obviously in terms of an existing and engaged community for our content, we will be dependent on the supplier of this service to continue to support, manage and develop the environment.

Whilst in many instances these ‘cloud’ services have been shown to be more reliable than those hosted ‘in-house’ by organisations, we recognise that we have a responsibility to our users to ensure continuing access to our resources. Therefore we will mitigate against the failure of external environments by ensuring that our core content is also available on the CMS or Library Management System.

In addition, we will ensure that content created specifically for Web 2.0 environments is included within the Library’s Records Management Guidelines – supporting the long term preservation of this content.

5.4. Failing to Develop Staff

The strategy’s emphasis on innovation requires significant staff development over an extended period. We recognise that the existing skills sets will require adaptation for Web 2.0 environments and we have mitigated against skill stagnation by securing support from the Library’s Training Manager for the development of a programme of training to be made available to all staff.

Furthermore, we will work with managers across the Library to ensure that they see the relevance of this training for their staff, and the necessity of such skills for future staff development.

5.5. The Changing Nature of the World Wide Web

One of the most significant risks for any Web Strategy is the continual development of new technologies and approaches to delivering online content. Whilst we recognise that there is the potential for our web presence to become ‘out of date’ we are confident that the principles and objectives of this strategy will remain relevant even beyond the life of this document.

We will further mitigate against this by reviewing this strategy annually, and by continuing to appraise and assess new technologies and general trends within the Web. Finally, we will ensure that relevant relationships are maintained with similar and divergent organisations in order to ensure that we are constantly aware of new and future developments.

6. Strategic Relationships

6.1. The Theatre of Memory⁸

The Theatre of Memory project will seek to fulfil the aims of translating into digital form as much as possible of the printed material published about Wales and the Welsh people, and making this information easily available to – and findable by – anyone with a connection to the world-wide internet. This strategy is closely linked to many of the aims of this project, including the delivery (when possible) of a more open license for digitised objects.

6.1.1. Welsh Newspapers and Magazines Online

To this end, the Library has begun the project (2009-2012) to digitise and deliver free, searchable, online access to the content of 2 million pages of historical newspapers and magazines relating to Wales. The project is funded by the Welsh Assembly Government's Strategic Capital Investment Fund until April 2011.

This strategy is fully aligned with the project's ambitious vision to enable existing and new audiences to interact with the largest critical mass of digital heritage relating to Wales yet delivered on the web. The project may also deliver the determining platform to unequivocally realise many of the objectives as set out in this strategy (such as **2.2 Support a Discussion Across the Web** and **2.4 Crowdsourcing**).

6.2. CyMAL Funded Projects

The Library is an Assembly Government Sponsored Body (AGSB), and receives funding from the Welsh Assembly Government through the sponsor division CyMAL: Museums Archives and Libraries Wales. The Library works in close partnership with CyMAL on the delivery of a number of projects:

6.2.1. The People's Collection

The People's Collection is a collaborative project between the Library, National Museum Wales, and the Royal Commission on the Ancient and Historic Monuments of Wales. The project is overseen by CyMAL: Museums, Archives and Libraries Wales and will enable users to access resources from many different sources through both a central website and the sharing of information programmatically.

The project runs from 2008-11 and this strategy supports the collaborative sharing of the collections through such programmes. In addition, it may be possible for some of the objectives within this strategy (such as **3.2 Build an API for Public Development**) to be realised through our work with the People's Collection.

⁸ http://www.llgc.org.uk/fileadmin/documents/pdf/theatre_of_memory.pdf

6.2.2. Libraries for Life: Delivering a Modern Library Service for Wales 2008-11⁹

The Library is involved in supporting many aspects of the work of the CyMAL Libraries for Life programme. However, we have specific responsibility for Strand 2 of the programme: *Online content and resources - delivering online information and developing the library.wales.org website*. This work comprises the implementation, development and management of the library.wales.org website¹⁰, the all Wales catalogue cross-search and inter-lending interface *CatCymru*¹¹ and the procurement and management of joint online services for libraries in Wales.

This strategy supports the general development, and sustainability, of these services and the specific developments and experiences can be shared through all aspects of this strategy.

6.3. One Wales: A Progressive Agenda for Wales

The One Wales agreement¹² between the Labour and Plaid Cymru Groups in the National Assembly outlines the priorities for policy and government within Wales. The Library is continuing to make an important contribution to the realisation of these objectives and this strategy is informed by the objectives of the agreement.

6.4. Digital Britain

In June 2009 the Department for Culture, Media and Sport (DCMS) published the *Digital Britain* report, outlining the plans for securing and developing Britain's role in the global digital economy. The report¹³ highlights many areas which will be of interest to the Library, including the growth of higher-bandwidth infrastructures for the UK, the increase in digital literacy and participation and the general commitment to increasing support for digital development in the UK.

6.5. Other Library Strategies

The delivery of content and services via the Web is central to much of the work of the Library and the continually growing numbers of online visitors is testament to our support of this important communication media. However, there are particular areas in which this strategy links with other Library and external strategy and policy documents.

6.5.1. *Shaping the Future: The Library's Strategy 2008-9 to 2010-11*

A great deal of the Library's corporate strategy requires the effective delivery of services via the web. Specifically, this strategy fulfils **Objective 1.4: Taking**

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<http://wales.gov.uk/depc/publications/cultureandsport/mal/museum1/librariesforlife/librarieslifeenglish.pdf?lang=en>

¹⁰ <http://library.wales.org>

¹¹ <http://library.wales.org/catcymru/>

¹² <http://wales.gov.uk/about/strategy/1wales/>

¹³ <http://www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf>

advantage of new online technology, including the construction of Web 2.0 services, to develop progressive ways of interacting with users.

6.5.2. *A Library and Much More*: The NLW's Communications Strategy for 2009-11

The Library's communication strategy places the Web at the core of our interaction with readers and other external bodies. This strategy supports all of the Strategic Priorities encompassed by that document but specifically meets the needs of **Strategic Priority 7: To develop our electronic methods of promotion and marketing**

6.5.3. The Library's Income-Generating Scheme 2008-09 to 2010-11

The Library's first Income Generation scheme outlines how the online environments can be used to increase sales from the Library. This strategy supports this aim by seeking to embed and link the Online Shop as a central part of the Library's web content – including that available externally.

6.5.4. The Library's Data Protection, Records Management and Freedom of Information Policies

The Library's information management policies provide guidance on the appropriate use of information held or accessed by the Library. These policies represent a vital part of the regulatory and policy framework for this strategy and all objectives and goals within this document will be implemented in accordance with these policies.

6.5.5. The Library's Education Service Policy and Strategy 2008-11

The Library's Education service has identified the need to maintain a web presence for the Education Service, and use the website to promote the Service and the Library's work (**Objective 3.9**). This strategy supports this objective by supporting the redevelopment of the current Education content and seeking to link this information directly to other relevant areas across the Library's web portfolio.

6.5.6. The Library's Welsh Language Scheme

The Library's Welsh Language Scheme describes our commitment, in principle and in practice to providing Welsh language services – including via the Web. This strategy confirms our position and how we will work with organisations and provide information bilingually. In addition, the strategy outlines the ways in which we will work with the Welsh Language Board to provide input on the bilingual use of new Web environments.

6.5.7. Forthcoming Strategies

The Library is preparing or revising a number of strategies which will reflect and link with aspects of this document, and which will in turn inform the implementation of this strategy. These include:

- **The Digitisation Policy And Strategy**
- **The Reader Services Strategy**
- **The Library's Collection Policy**
- **The ICT Strategy**
- **The Resource Description and Access Strategy**

6.6. Partner Organisations

Whilst many of the developments outlined in this strategy will provide improved and enhanced services for our end users directly, we recognise that we can achieve a great deal – and share our own developments – as part of wide network of partnerships. We have identified the need to develop or grow our relationships with the following groups:

- **Further and Higher Education Institutions** (both within Wales and worldwide) who represent an important user group as well as offering opportunities for development and content sharing partnerships.
- **Key Partner Libraries, Museums and Archives** with whom we already work closely and can seek out new ways of delivering services and content either jointly or through co-development.
- **Other Libraries, Museums, Archives and Cultural Heritage Bodies** (both within Wales and worldwide) with whom we can share our experiences, learn and develop new approaches and develop best practice.
- **Participant Communities** (such as Family and Local History Groups) who represent not only an important user group but also will be key partners in the development of crowdsourced and interactive services.

Appendix A: Example Implementation Timescale

This outline illustrates the expected delivery of strategic objectives. Ongoing objectives (such as training or sharing content) and developments to be resourced through partnerships are not included in the timescale.

	2009-10				2010-11				2011-12			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A		■	■	■								
B			■	■	■	■						
C				■	■	■						
D					■	■	■					
E						■	■	■	■			
F									■	■		
G											■	■

Development Package A:

Template and Design Package

Development Package B:

New Communication Paths (Blogging, License Our Objects for Free and Simple Reuse)

Development Package C:

Communications and Feedback Workflow

Development Package D:

Consolidate Infrastructure

Development Package E:

Content Restructure (An Interpretive Digital Exhibition Space, A Structure for Development, Share Our Intellectual Output, Share out Events Digitally)

Development Package F:

Integration (Catalogue Integration, Develop Interactive Services, Support a Discussion Across the Web, Bring In External Content to Enhance Our Resources)

Development Package G:

Intranet-Wiki

Ongoing Work (Exploit External Points of Presence, Bilingual and Accessible Web Services, Understand and Respond to Our Users, Skills and Training, Rights for Sharing, Support and Encourage Staff in their Personal Digital Development)

Partnership Developments (Build an API for Public Development, Prepare for the Semantic Web)

Appendix B: Key Roles and Responsibilities

e-Editor

- Managing, developing and ensuring continuity for all Library web content.
- Managing operational activity, including statistics, related to the web
- Ongoing research into all aspects of web provision
- Providing guidance to digital projects and other developments within the Library as appropriate.
- Managing the workflow and training of contributors
- Specifying and managing developments in partnership with the Web Unit

Technical Team

- Managing, developing and supporting the Typo3 CMS
- Appraising, implementing, developing and supporting Typo3 Extensions
- Developing new Typo3 extensions or applications as appropriate.
- Managing, developing and supporting other aspects of the Library's core Web infrastructure in partnership with other units in the ICT section
- Implementing and maintaining CMS templates, design and branding elements
- Ensuring the NLW is aware of technical developments in the field

Contributors

Publishing Contributors

- Responsible for editing and publishing content on specific sections of the Library's web portfolio.
- Responsible for ensuring consistency through all web content in partnership with the e-Editor
- Responsible for a certain group of contributors within their area of work (as appropriate)
- Responsible for editing, managing and publishing their contributors' pages on the main NLW website (as appropriate)

All contributors

- Responsible for creating content for their pages in line with NLW web guidelines
- Responsible for developing those pages in discussion with the e-Editor and/or other contributors
- Responsible for clearing any copyright, permissions issues on their content before adding to their pages
- Responsible for creating and editing rich media and images (as appropriate)
- Responsible for ensuring their pages are up to date

Chair of Panel y We

- Ultimately responsible for NLW web provision and strategic objectives
- Responsible for steering web developments within the NLW and ensuring continuity between provisions through Panel y We meetings
- Responsible for ensuring web policies and documentation are up to date
- Ensure resources to achieve desired web developments
- Confirm the content of yearly operational plans