Digital Preservation Strategy, 2012-2015

Preface

This digital preservation strategy sets out what the National Library of Wales (NLW) intends to do to preserve digital materials over the next three years. It builds upon the foundations established by the first two digital preservation strategies. This new strategy aligns with the Library's overall strategy *The Agile Library: The Library's strategy 2011-14,* which places an emphasis upon unlocking the potential of the Library through the application of efficient business processes and focuses on institutional flexibility, content use and external relationships.

1 Purpose of the document

This document provides the framework for the NLW's digital preservation activity over the next three years. It puts these activities in context by outlining trends which will influence digital preservation in the coming years and by reviewing the achievements of the last digital preservation policy and strategy. It also describes the nature of the digital collection, the aim and objectives of the strategy, how the strategy will be implemented, delivery mechanisms, the relationship of the strategy with other NLW strategies and outlines the risks of not implementing the strategy.

2 Context

It is not possible to have access without preservation. Long-term access to any type of asset, regardless of format, depends upon institutional commitment and collection care. Sustained access to digital material requires that the preserving institution has the infrastructure, capacity, skills and resources to enable it to keep abreast with the fast moving digital environment.

The next three years is likely to be a very challenging period for NLW. There will be a significant reduction in public spending, with a resultant impact upon the resources available to support digital preservation. There will also be an increasing quantity of digital material being made available, including user generated content, research data, blogs, websites and Twitter messages. E-book readers are growing in popularity and it is estimated that, within the next decade, the majority of titles will be published in electronic, or dual format.

Archival collections are becoming increasingly "hybrid" with a mixture of digital and analogue content. The ease of electronic publication is also blurring the distinction between published and non-published. Organisational records, such as minutes and reports, which used to form part of the archival collection, are now routinely published on the web.

NLW is also adding to its own substantial corpus of digital content through the extensive digitisation of its holdings. As well as the audio-visual material which is being accumulated by the Screen and Sound Archive, NLW is expecting a substantial collection from ITV Wales. This content will be transferred to digital format by NLW.

NLW has a responsibility to use its resources effectively and wisely. Its Business Transition Programme, which commenced in 2011, is aimed at making the most efficient use of NLW resources through effective processes and workforce development. Digital preservation is an expensive undertaking which requires resources and capacity. This strategy aims to enable digital sustainability in an efficient and cost-effective manner.

3 Achievements of NLW Digital Preservation Policy and Strategy, 2008-2011

Since 2008 there has been considerable progress in embedding digital preservation into the NLW's culture and infrastructure. The 2008 strategy listed thirteen strategic objectives which broadly aimed at ensuring lifecycle management, developing the technical infrastructure, promoting best practice and undertaking collaborative activity. Progress has been made in all these areas, as is described below:

The life-cycle of the digital assets selected for long-term preservation is managed by the Digital Asset Management System (DAMS). Assets which are ingested into the DAMS are checked for integrity and completeness. The assets are managed through the creation of Metadata and Encoding Transmission Standard (METS) documents which include administrative, technical and preservation metadata to enable continued access. These documents reference the preservation copies of the digital assets, which are held within the Library's digital store, the Digital Archive. This activity is undertaken within the framework of the Open Archival Information Systems (OAIS) model. Preservation plans have been developed for several projects generating digital material, including the Welsh Journals project and the Welsh Newspapers and Journals Project.

There have also been some significant technical developments, including that of the Off-air system, which enables automatic ingest of broadcasted programmes and the e-theses harvesting infrastructure which ingests theses records from Welsh institutions and provides access to them in the catalogue. The publishing of 183,000 digitised wills on the NLW website was a significant technical achievement. In order to enable both access and preservation, the digitised images were presented in differing file formats, including a preservation format and two access copies. The sustainability of the images was secured by linking them to METS documents which holds information about their management and use. The wills are searched through the catalogue, but held in the DAMS. Persistent identifiers ensure that the link between the catalogue and the image will persist over time. The METS documents are exposed on the catalogue, allowing users to understand how the NLW has defined and used the standard.

With regard to the promotion of best practice and standards, the wills project was submitted for consideration for the Digital Preservation Coalition award. Although the application was not successful, the application was warmly welcomed by the judges, several of whom noted the very high regard in which they hold the National Library of Wales's work in digital preservation and cognate fields[1]. The application

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[1] Letter from William Kilbride, Executive Director of the DPC, to NLW, 13 September 2010

was felt to be an exemplary digitization project – and one judge commented "all digitization projects should be like this but sadly few are." The NLW's commitment to the sustainability of its digitisation projects was also acknowledged in the JISC report on its digitization projects. NLW had one of the stronger preservation plans of all the projects evaluated and was commended for committing to resourcing the project beyond the length of the project funding[2].

NLW has also developed its collaborative activity and has continued to work with the British Library to preserve the published digital material which may fall under the enabling legislation associated with the Legal Deposit Libraries Act 2003. It has also, through the Welsh Literature Archive Project, worked with authors and content creators to raise awareness of the issues of digital preservation in the creation process. It is continuing to work with the United Kingdom Web Archiving Consortium to preserve websites of Welsh interest. It is collaborating with the Archives and Records Council Wales to develop digital preservation activities in Welsh institutions.

4 The nature of the digital collection

The collection of digital information resources includes:

- Digital visual and audio collections created, received or recorded off-air as part of the collections of the National Screen and Sound Archive of Wales
- Digital surrogates of analogue material in NLW collections resulting from digitisation programmes, together with supporting digital material
- Electronic publications received under voluntary legal deposit
- NLW's corporate records
- Websites
- Archival collections which are fully, or partly, digital
- Other digital objects such as digital mapping products or digital photographs
- Legal Deposit material received jointly through the British Library arrangements
- Welsh University Theses

For preservation purposes the NLW collection is not considered to include digital materials which are not held by NLW but can be accessed at NLW (e.g. on-line journals or reference sources such as EEBO, Ingenta, Ancestry.com and NewsUK). Access to these materials is usually covered by a subscription and licensing agreement, on the termination of which access to the resource is ended. NLW is not normally able to take responsibility for long-term preservation and maintained access to such materials.

5 The aim of the strategy

The aim of the strategy is to build upon the existing digital preservation work to continue to enable the long-term sustainability of digital assets, both born digital and digitised, held by the Library. The assets to be permanently preserved are those which

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[2] JISC Project Report: Digitisation Programme: Preservation Study, 2009, p. 52

are necessary to enable continued access to the digital material, such as master files. It is not intended to permanently preserve derived files, unless there is a particular reason to do so. Where, however, additional content has been created to support digitisation and access, for example through Optical Character Recognition, this value-added content would fall under the remit of the policy.

The strategy has six objectives:

- Ensuring the long-term sustainability of those NLW digital assets which have been selected for preservation
- Managing other digital assets in an appropriate manner, according to significance and use
- Undertaking activities in a cost-effective and efficient manner
- Being able to respond to the fast changing environment through flexibility and innovation
- Leading in digital preservation activities in Wales through promoting good practice and standards
- Collaborating with other bodies to preserve Welsh digital assets

6   Implementation of the strategy

The implementation of the strategy depends upon organisational capacity, flexibility, leadership and collaboration. Preservation activity will align with the Library's overall strategic document, *The Agile Library, 2011-2014*, which focuses upon the ability of the Library and its staff to respond positively to its changing strategic environment.

6.1   *Institutional flexibility*

Sustained access to digital material requires that the preserving institution has the infrastructure, capacity, skills and resources to enable it to keep abreast with the fast moving digital environment. The Library will:

- Implement efficient workflows for the management of the life-cycle of digital material, with automated processes where possible
- Provide a robust, reliable and scaleable and secure technical infrastructure for storing digital material
- Be aware of the rights issues surrounding digital preservation and technological protection measures and evaluate the risks arising from technical processes, such as format shifting, migration and emulation
- Lead in the implementation of standards and best practice
- Develop criteria for prioritising preservation activity, ensuring that priority material is ingested into the Digital Asset Management System (DAMS).
- Provide a secure environment which maintains the integrity of assets held outside the DAMS
- Undertake costing activities for life cycle costs
- Provide sufficient resources to support digital preservation activities
- Encourage staff to innovate, develop expertise and transfer skills and provide the environment to enable this to happen

- Embed digital preservation sustainability into library activities
- Align with other strategies and policies, including the Collection Development Policy, ICT strategy and Digitisation Strategy
- Lead on the use of standards and best practice and promote these in Wales and beyond
- Take advantage of opportunities for collaboration and partnerships

6.2 *Flexibility of information and content*

Sustained access to digital material requires a proactive response. The pace of technological change is considerable, with digital content being generated in various formats and the "hybrid" library becoming the reality. In order to access digital material, it is necessary to keep it authentic, reliable, secure and useable over time. This is achieved through the migration of data to keep abreast with current formats, together with the preservation of the metadata which ensures authenticity. In order to do ensure continuing access, the NLW will:

- Ingest digital material into the DAMS according to priority
- Provide user access to reference copies, ensuring the integrity of the archive copies
- Devise migration pathways for different formats of material, depending upon the nature and use of the material
- Ensure rights information is gathered to enable formats of digital objects to be changed on accession, or during migration
- Collect and record sufficient preservation metadata to enable sustainability
- Link preservation metadata to the digital object at the appropriate level
- Migrate digital objects, together with their metadata, to appropriate formats
- Undertake preservation planning and risk assessment to assess preservation actions

6.3 *Flexibility in user relationships*

Users require content to be discoverable and deliverable easily and effectively. The NLW will aim to:

- Provide public access to every digital object held in the digital asset management system, where rights allow
- Respond to user demands for access to digital collections
- Deal with digital backlogs to increase discoverability of digital resources
- Providing users with content in a suitable format for their needs

7 Delivery of the strategy

The delivery of the strategy can be articulated through nine themes. These can be defined as follows:

- Implementation of the Sustainable Access Plan and Permanent Access Plans

- Prioritisation, resourcing and alignment with NLW strategy
- Embedding and sustainability
- Digital Asset Management System and ingest procedures
- Infrastructure and storage management
- Preservation planning
- Development, skills and innovation
- Best practice and standards promotion
- Collaboration and partnerships

7.1 The strategy will be supported at an operational level by the Sustainable Access Plan (SAP). This document outlines the activities required to ensure the preservation of, and continued access to, digital content in alignment with the Open Archival Information Systems (OAIS) model. It will act as a reference document for operational activities, based upon activity, responsibility and monitoring. It will link to the Permanent Access Plans (PAPS) which will be created for every project which generates, or accumulates, digital material.

7.2 Prioritisation, resourcing and alignment with NLW strategy
Caddug, a cross-departmental group, comprising the Head of Collection Services (chair) and the Heads of the Acquisition and System Section, Collections Care, ICT and the National Screen and Sound Archive of Wales, or their representatives, will be responsible for deciding upon priorization, resourcing and monitoring the strategy.

7.3 Embedding and sustainability
The Head of the Collections Care Section will be responsible for embedding and sustaining preservation through monitoring activities and preservation planning. This will include benchmarking for metadata consistency, monitoring the Sustainable Access Plan and reviewing the Permanent Access Plans for individual projects and developing costing models.

7.4 Digital Asset Management System and ingest procedures
The DAMS manager will be responsible for the management and development of the digital asset management system. The Ingest Manager will be responsible for ingest policies and procedures and the Digital Standards Manager will work with the Standards and Consistency Panel to ensure metadata consistency. The Acquisitions Unit will be responsible for selection according to the Collections Development Policy.

7.5 Infrastructure management and storage capacity
Technical support will be provided by the Information and Communication Technology Section which is responsible for the ICT hardware and software procurement and management, including disaster recovery and backup, central services and storage environments.

7.6 Preservation Planning
Responsibility for this will be undertaken at a strategic level by Collections Care and Systems and Acquisitions. Operational responsibility will be outlined in the Sustainable Access Plan.

7.7   Research, skills and innovation

Research, skills development and innovation will be undertaken within a flexible environment, involving staff across the NLW.

7.8   Best practice and standards promotion

The NLW will continue to lead in the implementation of standards and best practice. It will send representatives to conferences and provide advice and guidance within Wales and beyond.

7.9   Partnerships and Collaboration

The NLW is working with a number of individuals and organisations to support digital preservation. These include partnership with the British Library and National Library of Scotland for the preservation of legal deposit material which falls under the remit of the Legal Deposit Libraries Act 2003.

The NLW collaborates with The National Archives and is a member of group responsible for delivering the Archives for the 21st Century digital preservation workstream.

The NLW is a member of the Digital Preservation Coalition, the Digital Curation Centre, the Preservation Advisory Centre and the Open Planets Foundation. These bodies are actively engaged in supporting digital preservation.

The NLW has supplied content to Europeana, the body which is increasing access to the European cultural and scientific heritage, and supports the European Commission's recommendation[3] on ensuring continuing accessibility through digital preservation.

Within Wales, the NLW chairs the Archive and Records Council Wales Digital Preservation Group and is a member of the digital preservation project board. It is working with the Welsh Repository Network to preserve electronic theses and supplying harvested theses to the Ethos service. The NLW is working with the Welsh Books Council to consider the feasibility of establishing a Trusted Digital Repository (TDR) support the preservation of the output of Welsh publishers.

The NLW will be open to opportunities to collaborate on digital preservation and data sustainability initiatives.

8   Relationships with other internal documents

This strategy works within the framework of the NLW's overall strategies: Twenty-twenty: A long view of the National Library of Wales (2010) and The Agile Library: the Library's strategy (2011-2014). It also aligns with the Policy on Collections Care (2010), the Collections Development Policy (2010), the Digitisation Strategy (2011-2014), the Information and Communication Technology Strategy (2011-2014) the

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[3] European Commission: *Commission Recommendation on the digitisation and online accessibility of cultural material and digital preservation*, Brussels: European Commission, 2011

Digital Media Strategy (2012-2015) and the Resource Discovery and Delivery Strategy (2011-2013).

9 Risk Management

If the NLW does not continue to implement and develop its strategy to ensure the long term sustainability of its digital assets, it will lose integrity as a National Library and fail to fulfil the terms of its Charter which states the NLW's function is "to collect, preserve and give access to all kinds and forms of recorded knowledge". It will also risk non-compliance with the Freedom of Information Act, 2000, and the Data Protection Act 2003. It will fail to meet the expectations of its users, face increased costs in restoring digital assets and services and will not be able to contribute to, or take advantage of, collaborative initiatives.