DigitalPreservationCoalition

Annual Report
05-06

Promoting Digital Preservation

Contents

Our Aim

The aim of the **Digital Preservation Coalition** is to secure the preservation of digital resources in the UK and to work with others internationally to secure our global digital memory and knowledge base.

All organisations are creating and/or acquiring increasing quantities of digital materials whether as datasets, digital records, as a result of digitisation projects, as the output of scholarly research, creating websites for corporate and public dissemination.

The Digital Preservation Coalition [DPC] was formed in the belief that no single organisation can hope to single-handedly address all the challenges and issues associated with digital preservation. It was launched in February 2002 with an initial membership of 19, and has grown to 29 members as of May 2006. The DPC carries out a number of activities including **running seminars and forums, commissioning reports, digital preservation training** and **making recommendations** for action and responsibility. There are a number of assumptions underlying the DPC:

- Intense collaboration and co-operation across and between sectors are essential.

- There is a far wider range of key players who need to be involved at various different stages in the lifecycle of digital resources.

- There is still a pressing and increasingly urgent need for advocacy and awareness-raising and to raise the profile of digital preservation to a much wider community.

- Staff and clients of all organisations are increasingly dependent on digital materials to satisfy a range of information needs. Digital preservation is therefore an issue which all organisations will need to address sooner or later.

Chair's Introduction

Trinity College Library, Dublin

Last year TCLD were given 3000 British, Irish and French revolutionary cartoon images by a collector. They have been looking at instigating digitisation and deciding on standards. They are currently looking at Metadata, and will possibly use PREMIS and DSPACE as the repository.

Publishers Licensing Society

Publishers manage digital assets for the length of copyright and sometimes beyond. For digital publications this means a commitment of at least decades. Partnering with others interested in long term preservation and access to digital content is essential in order to share knowledge and decrease duplication of effort. PLS hopes membership in the DPC will enable it to act as an information gateway: sharing good preservation practices from the public sector with publishers, and helping raise awareness of the copyright implications of digital preservation in the public sector.

University of London Computing Centre

ULCC have been pleased with the success of the **Digital Preservation Training Programme**, which was delivered on 3 occasions in the past year. It received very positive reviews from attendees and an independent reviewer. The DPTP was made possible with financial support from JISC, input from a number of DPC members and the generosity of Anne Kenney's team at Cornell, who allowed us to re-use their training material. We're also grateful for practical and financial assistance from the DPC, and have received further support funding from JISC for the coming year. We've also been active with the Digital Asset Assessment Tool (due to report as this goes to press) and the RLG/NARA Audit and Certification tool for trusted digital repositories, along with colleagues from the DCC.

This is now the fifth year of DPC activity, and we have seen the DPC office in York run smoothly into its second year. The change in directorship from Maggie Jones to Najla Semple in March was a seamless and successful transition. The DPC board would like to extend a special thanks to Maggie Jones who worked tirelessly to build up and maintain a successful Coalition in her three years at the DPC. The strong DPC staff, Carol Jackson and Kieron Niven, have continued to work efficiently to support the operations of the organisation. Kieron left the DPC at the end of July, which is a loss to the team.

The highlight of the year was the launch of a new DPC publication, 'Mind the Gap', at the House of Lords in February. Much hard work in the previous year went into the completion of the 'UK Needs Assessment' which compiled essential data on digital preservation activities in the UK. 'Mind the Gap' pulled all this data together into a concise and effective publication. Much positive feedback on the report has proved how important the research has been to push the digital preservation agenda forward. We were delighted to have Andrew Stott of the E-Government Unit speaking at the event; his interest in the field has helped to emphasize the importance of digital preservation at a government level. The launch also received media attention in both the general and specialist press. All of this has helped raise the profile of the issues that the DPC is working hard to promote.
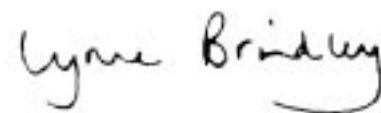
This year has also been one of successful growth for the DPC. Membership is now at 30. We were pleased to welcome the University of Southampton, House of Lords, Publishers Licensing Society, and the Oxford Archaeological Unit as new members. The Open University have upgraded to full membership and there is interest from Emory University in the States to join as an associate member. All these different organisations serve to reflect how diverse the DPC is and how very cross-sectorial digital preservation issues are.

We held our second successful planning day in June. Members discussed the new 3-year business plan, and the day included a focus on the DPC and how it can engage in digital preservation activities at an international level. In particular we considered tangible ways of how to carry forward the recommendations from 'Mind the Gap': a task the DPC is very capable of, considering its already substantial achievements.

This year has also seen the launch of the digital preservation training programme. Three week-long courses have been held all of which ran extremely successfully. The calibre of the instructors is extremely high and student feedback was always positive. Specialist training in digital preservation is becoming more and more indispensable to more and more organizations and we are delighted that the DPC is at the forefront of delivering such high quality training such as this.

The DPC continues to run the consistently strong programme of forums and briefing days. These cover a variety of specialist digital preservation themes, and attendance is always excellent. Web archiving, digital repository models, and policies for digital preservation were among just some of the topical issues addressed this year. This last year has been full and productive and we look forward to another year building on the achievements of the past one.

Lynne Brindley

Lynne Brindley
CEO British Library

> " Gone are the days when archives were dusty places that could be forgotten until they were needed. The digital revolution means all of us – organisations and individuals – must regularly review and update resources to ensure they remain accessible…. the Mind the Gap report is a wake-up call to each one of us to ensure proper and continuing attention to our digital records. "
> **Lynne Brindley, CEO, British Library**

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No. 2 – © Oxford Archaeology Unit
No. 3 – © The National Archives

Highlights of the Year

Oxford Archaeological Unit

Oxford Archaeology have made a strategic commitment to openness in their activities and behaviours. The programme to deliver on this commitment is known as Open Archaeology – http://openarchaeology.net. There are several strands to this programme: Open Source, Open Standards and Open Data. While all of these make a positive contribution to digital preservation, Open Data is the strand with the strongest focus. Open Data is about making our archaeological data accessible to all, and is built around several tenets, including: as archaeology is all about "preservation by record" we must preserve the record; that much archaeological data is now in a digital form and therefore digital preservation is key; that we must provide useful access to the preserved record.

Moving towards the goals of Open Archaeology is a long and expensive process, and OA are seeking funding and partnerships to accelerate this; however, various projects are underway using internal funding to preserve current digital data and find effective ways of publishing the same. These include implementation of a mirrored SAN for bit-level preservation, restructuring the organisation to bring archives in to the IS division and restructuring project workflows to place the archive at the beginning of the process rather than the end.

Mind the Gap Launch

February 2006 saw the launch of the 'UK Needs Assessment' report, 'Mind the Gap' at the House of Commons, attended by just under 100 people. It was a stimulating event which helped enormously to raise the profile of digital preservation in the UK. The report is available from **http://www.dpconline.org/docs/ reports/uknamindthegap.pdf**

1. The survey reveals that the loss of digital data is commonplace, with more than 70% of respondents saying data had been lost in their organisation.

2. Awareness of the potential economic and cultural risks is high, with 87% recognising that corporate memory or key cultural material could be lost and some 60% saying that their organisation could lose out financially.

3. In 52% of the organisations surveyed there was management commitment to digital preservation – but only 18% had a strategy in place.

Key Report recommendations:

Growing Awareness
Organisations should continue to raise awareness of the impact of digital preservation beyond the current core of informed individuals and institutions.

Awareness into Action
Organisations should create long-term proactive information/knowledge management plans and assign responsibility for dealing with digital preservation issues. Regular audits should also be performed to assess and address digital preservation needs.

Funding Justification
Organisations undertaking projects should explicitly address and cost for the long-term retention of the digital information they produce. Such costings should feed into research on cost and lifecycle models.

Repositories for All
More research into collaborative standards and methodologies in digital preservation should be funded. Funding should also be aimed at creating trusted digital repositories and ensuring that such repositories exist for all relevant sectors and organisations.

New Discipline
Training in digital preservation should be encouraged and programs should be integrated into the training of professionals such as conservators, librarians and archivists. Forums for the exchange of best practice are needed.
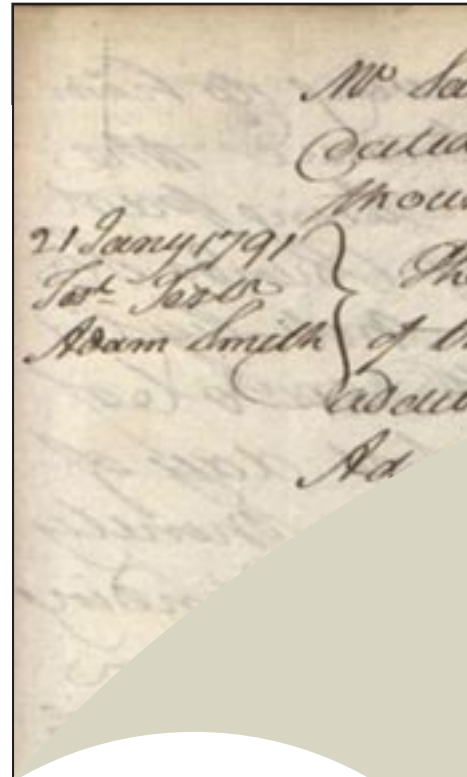
Government Policy
Awareness of digital preservation issues should be raised on a government level, both nationally and internationally, in order to influence relevant policy making.

Legal and Regulatory Frameworks
The UK Government, along with the digital preservation community and the legal profession, need to establish clearer guidelines for ensuring that digital information is legally admissible and certifiable as acceptable by regulatory authorities.

Reducing Risks
An international collaborative 'market' for digital preservation tools should be created. Such a market should encourage the use of open file formats and standards and consider the long-term preservation needs of digital information.

> **When I started work, I had a real "National Insurance Card" – with space for a stamp every week. But for many years now, my state pension entitlement has existed only in the form of some bits on a disk and some magnetic tapes. Our collective memory is the electronic one, spread across various filing and document management systems.**
>
> Andrew Stott, Deputy CIO & Head of Service Transformation, E-Government Unit

Background image:
© National Library of Scotland – Testament of Adam Smith, 1791

Images above left to right:
No. 1 – © BBC
No. 2 – © Courtesy of The National Archives

Awards Ceremony

CURL

Cheshire III (Prof Paul Watry at the University of Liverpool) The University of Liverpool and the University of California, San Diego are jointly developing a range of next generation data management technologies which will assure the long-term preservation of digital data.

UC San Diego is providing the software infrastructure to manage the data collections through its Storage Resource Broker (SRB) and Intelligent Rule-Oriented Data management (iRODS) technologies. In particular, the new iRODS approach will enable the validation of assessment criteria for trusted digital repositories. This is a key capability in assuring authenticity in electronic records, as required for digital preservation.

The University of Liverpool is supplying the software infrastructure to analyse the data through its Cheshire data and knowledge analysis software and the Multivalent digital preservation technologies. The Cheshire technology supplies the primary means of digital library browsing, presentation, and analysis. The Multivalent technology is used to present and manipulate documents and other media in a preservation environment. Using Multivalent will make it possible to read documents without resorting to migration or emulation strategies.

Taken as a whole these technologies are aiming to meet the common goal of generic data management infrastructure that is required for digital curation. Their inclusion in the National Archives and Records Administration prototype (NARA) in Washington DC sets the benchmark for persistent archives and digital preservation requirements for preserving critical data.

The Digital Preservation Award is sponsored by the DPC and is held as part of the Conservation Award and this helps to recognise digital preservation as not simply an IT issue but also a cultural heritage issue. The Digital Preservation Award recognises leadership and practical advancement in the digital preservation arena.

The second digital preservation award was presented in November 2005 by Lloyd Grossman at the Awards Ceremony in London. The winners of the award were the PREMIS [preservation metadata: implementation strategies] working group. Rebecca Guenther and Brian Lavoie received the award on behalf of PREMIS.

About PREMIS: Information that records relevant details about digital materials is needed to make sure they can be managed over time and that they remain authentic and accessible. This information is called preservation metadata. The Group has published a Data Dictionary for Preservation Metadata and other tools to provide guidance for institutions which need to create, manage and use digital materials.

http://www.oclc.org/research/projects/pmwg/

The next award will be held in September 2007 and the DPC is hard at work for the organisation of this event.

DPC Activities

DPTP

This year has seen the very successful launch of the Digital Preservation Training Programme [DPTP]. Training is a core element of DPC activities and as Mind the Gap concluded, there is an increasing need to train the digital preservation experts of the future.

The Digital Preservation Training Programme is specifically aimed at developing and delivering a modular training programme with content targeted at all levels of staff from service or project managers to technical and operational staff. The DPTP's broader aim is to equip staff with the skills, tools and confidence to be able to embark on a pragmatic and cost-effective digital preservation programme appropriate to their own institutional needs. The course takes in to account the practical reality that any approach to digital preservation is iterative and that no organisation is able to leap instantly into a fully formed digital preservation programme.

To encourage practical and responsible stewardship of digital assets, the DPTP seeks to cover a wide range of topics relating to the world of digital preservation. The training course modules are far reaching and comprehensive, addressing the most up-to-date and relevant issues in the digital preservation arena. Accompanying course materials and a large practical component ensures that any hands on learning reinforces key concepts and strategies explored during the course. The content of the modules are tailored in recognition that some issues are global in nature while allowing for national variations. Course modules are taught via a mixture of lectures, discussions, practical tasks and a class project. The DPTP has been held three times over the year:

**Warwick October 2005,
Birmingham March 2006,
York July 2006.**

Modules covered:

Access; Costs and risk management; Digital records management; File formats; Institutional respositories; Legal issues; Living with obsolescence; Metadata; OAIS; Outsourcing; Preservation approaches

http://www.ulcc.ac.uk/dptp/

Museum Libraries and Archives Council

The MLA was awarded a grant by the Big Lottery Fund to develop a UK-wide education programme pertaining to commemorative events of the Second World War. A wide range of digital materials have been created and the MLA is working with the University of London Computer Centre to build a digital archive. This material will require a substantial amount of time physically loading the material, assessing file structures, document types, migrating problem file-types, documentation of the results and other processes in order to bring the material into the archive.

The Open University

The **Open University Digital Preservation Working Group** has representation from across the organisation, with specialist expertise in a number of key professional areas; Archives, document & records management, Learning & Teaching Solutions; metadata development and knowledge media. The Digital Preservation Working Group has developed a policy for preserving Learning & Teaching materials in digital format which provides guidance to ensure authenticity, reliability and long term accessibility of digital learning and teaching materials, not only for re-use and versioning, but also underpins the maintenance and preservation of the quality and continuity of the historical pedagogical record. The development and implementation of an OU wide digital preservation strategy is key. Understanding and implementing OAIS/METS standards is integral, as is the direct link to key business initiatives, such as Open Content Initiative, the VLE and the implementation of the OU Enterprise Content Management System.

DPC Activities

PRONI

Over the last year, the Public Record Office of Northern Ireland (PRONI) has sent five members of staff to the Digital Preservation Training Programme (DPTP) courses.

A number of recent projects in the Northern Ireland Civil Service - for example, Electronic Document and Records Management, e-HR and line-of-business systems, along with eGovernment requirements - are introducing new technologies and fundamentally changing the way the NICS does business. Establishing long-term access to corporate information is key both to ensuring business efficiency and to adhering to the legal requirements of the Freedom of Information Act 2000, the Data Protection Act 1998, the Environmental Information Regulations 2004 and the Public Records Act (NI) 1923. As a result, PRONI participates along with other key stakeholders from the NICS and an external expert in an Electronic Records Access (ERA) Working Group. In March, the NICS eGovernment Board accepted a paper from the Group that recommended the production of a 'Business Case to scope the NICS long-term access and digital preservation needs'. Work is expected to start on this in autumn 2006.

The NICS has commenced a major roll-out of EDRM to some 16,500 users. PRONI has already started work on a pre-ingest strategy that will form part of an overall digital preservation strategy.

Forums and Briefing Days

The DPC continues to carry out its programme of forums and briefing days. Forums are increasingly popular, the programmes are always of high quality. The smaller, more informal Briefing days were established in 2005 as an alternative to the forums and are open only to DPC members. Details of all these events can be found on our website.

DPC Briefing Day Policies for Digital Repositories: models and approaches – 5 July 2005

Digital repositories are an increasingly important element of institutional output and this day provided an overview of different models to chose from.

Joint DPC and Digital Curation Centre Forum on Policies for Digital Curation and Preservation – 3/4 July 2006

This explored a wide range of preservation policies that different organisations have in put in place to ensure effective management of their resources.

DPC Forum on Web archiving – 12 June 2006

This was the second DPC web archiving forum and provided a great chance to get an update on activities in this fast developing field.

DPC Briefing Day on OAIS – 4 April 2006

This event provided members to have an overview of a range of practical implementations of the standard.

DPC Briefing Day on Preservation Metadata – 8 September 2005

This event complimented the publication of the Technology Watch Report on preservation metadata.

Papers and articles 2005 – 2006:

'Mind the Gap – digital preservation needs in the UK'
Electric Connections – 22 August 2006 – Perth

'The Digital preservation Coalition'
UNESCO Conference – 4-5 November 2006, The Hague
http://www.unesco.nl/main_6-3.php

'Sustainability: Technical and Economic Challenges, the DPC Perspective'
DCC Conference, Bath, 30th September 2005
http://www.dcc.ac.uk/events/dcc-2005/programme/

'Preserving Digital Archives'
Preserving Digital Archives Training Event - 22 March 2006 Liverpool archives,
http://www.liv.ac.uk/lucas/Current_News.htm

'Digital preservation activities and the DPC'
BSI conference – Effective Electronic Preservation and Information Management Strategies, 6 June 2006 BSi Business Information Conference

'Mind the Gap – digital preservation needs in the UK'
Ariadne, Issue 48, July 2006-08-30
http://www.ariadne.ac.uk/issue48/semple-jones/

'Total Recall: Beating the Betamax syndrome',
Discover NLS Issue 2 Summer 2006

Llyfrgell Genedlaethol Cymru, The National Library of Wales

The National Library of Wales is implementing a **Digital Asset Management System** based on Fedora, an open source product. This implementation will enable the NLW to secure the long term preservation of its digital assets. Work is progressing on modelling Submission Information Packages for differing types of digital objects. This work will be followed by the ingest of these digital objects and their management and dissemination within the context of the OAIS model.

The National Archives of Scotland

The NAS Digital Preservation Strategy prepared in 2004 identified digital preservation as a major challenge and led to a NAS strategic objective to have in place a system for accepting, preserving and making available electronic records from a range of Scottish public authorities by March 2007. The Digital Preservation Strategy concluded that where possible, the NAS should adopt relevant existing national and international standards, specifically OAIS, PREMIS, BIP0008, and Prince 2. Another stipulation was that the processing of born-digital objects must be automated wherever possible.

The Digital Data Archive project involves both archivists and ICT staff, with Government Records Branch taking the lead on the archival side and ICT project managing. Stage three began in January 2006 with the preparation of a detailed technical specification for the DDA system and initial development of the software. The NAS also aims to take advantage of software developments elsewhere wherever possible (e.g. DROID and XENA).

The National Archives of Scotland (NAS) are currently collaborating with the Registers of Scotland (RoS) in a joint project to convert the sasine register, or Scottish land register, held exclusively on paper or microfiche, to digital images. It is their intention to make these images available for searching via the internet. The drivers for the project include improving public access to the sasine register by accelerating the conversion of paper sasines during the final years of the register's active use for legal purposes.

Since January 2001, NAS have undertaken other major imaging and conversion projects. By October 2006, the NAS digitisation teams had captured over 6 million digital images.

"I found it extremely useful, - I'm always asking for practical examples, and now I have got some."

"Really good, great opportunities for chatting to people and learning about practical implementations."

DPC Activities

What's New in Digital Preservation

The twice-yearly edition of What's New in Digital Preservation continues to be published and provides an excellent source of up-to-date information on digital preservation. Three issues have been published this year, issues 11, 12 & 13 and can be found on our website.

Technical Watch Reports

The aim of these reports is to produce short concise studies on particular areas of digital preservation interest. They are jargon free, easy to understand and can provide an excellent introduction to complex preservation issues.

Current reports include:

1. Lavoie, B and Gartner, R **'Preservation metadata' 2005**
2. Lavoie, B **'Introduction to OAIS' 2004**
3. Wheatley, P **'Institutional Repositoires' 2004**
4. Linden, J, Martin, S, Masters, R and Parker, R **'Large Scale Archival Storage' 2004**

DPC Planning Day

The second annual planning day was held on 28th June in York. The Archaeological Data Service provided a wonderful venue for this important day which was attended by 27 members. The aim of the day was to discuss the new the five-year business plan, the long-term influence of the DPC and review the recommendations from 'Mind the Gap' to consider how we can take them forward and implement them. Other topics covered were and DPC policy and structure. The DPC's international involvement was addressed in a presentation by the Digital Archiving Consultancy.

A full report of the day can be found under the Members' area: **http://www.dpconline.org/members/main/dpcdocplan.html**

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Digital Curation Centre (DCC)

G Slater
Public Records Office of Northern Ireland (PRONI)

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PLS
appointed 01/03/2006

British Library

This JISC funded **LIFE** (Lifecycle information for e-literature) project developed a methodology to help predict the long-term cost of Digital Preservation. The project partner was University College London Library and three diverse collections were investigated. Web Archiving, e-journals and the Voluntary deposit of electronic publications were studied and LIFE was able to apply the Lifecycle approach of Acquisition, Ingest, Metadata, Access, Storage and Preservation to each. The project also developed a generic digital preservation model to help frame the complexities involved with the predicted cost of future preservation.

PLANETS is an EU funded collaborative project which will address the many issues associated with Digital Preservation. The projects aim is to increase Europe's ability to ensure long-term access to its cultural and scientific heritage and to improve decision-making about long term preservation. PLANETS will help control the costs of preservation actions through increased automation, scaleable infrastructure and wide spread adoption across the user community. This will in turn establish a market place for preservation services and tools to ensure long-term access to valued digital content. The project team is comprised of Cultural heritage institutes, leading Universities and Technology suppliers across Europe.

Oxford University Library Services

The **Personal Archives Accessible in Digital Media** (Paradigm) project sees the major research libraries of the Universities of Oxford and Manchester come together to explore the issues involved in preserving digital private papers through gaining practical experience in accessioning and ingesting digital private papers into digital repositories, and processing these in line with archival and digital preservation requirements. Since its inception, the Paradigm project has worked with a range of politicians to pilot an alternate approach to the acquisition and preservation of personal archives that has been discussed in archival lit-erature for some time: early intervention in the records cycle. We have used the test-bed material acquired from our politicians in conjunction with a Fedora-based prototype preservation archive to begin articulating workflows using tools and standards such as the Fedora digital repository, METS and PREMIS. Much of the project's experiences with the soft and technical issues that we have encountered are being captured in an online Workbook, which can be accessed at http://www.paradigm.ac.uk/workbook.

The **Complex Archive Ingest for Repository Objects** (CAIRO) project http://cairo. paradigm.ac.uk, has recently been awarded funding for 18 months under the Repositories and Preservation strand of the JISC's Capital Programme. The Universities of Oxford and Manchester and the Wellcome Library propose to develop a tool for ingesting complex collections of born-digital personal archives, with basic descriptive, preservation and relationship metadata, into a preservation repository. This tool will be tested on digital materials already accessioned by the partner institutions and will provide an open-source tool for use by others with similar requirements. The project will produce technical and user support documentation and promote the service with relevant audiences.

MATS http://www.odl.ox.ac.uk/projects/projects_mets.htm. The METS Awareness Training Project (MATS) has been funded for two years, under the JISC's programme "Supporting Institutional Digital Preservation and Asset Management" The broad aim of the project is to kick-start a critical mass of METS-based projects within the UK so ensuring that UK institutions are fully standards-based in their digital object management.

Externally-led digital preservation projects: Oxford has maintained an active role in a number of digital preservation activities led by other institutions. In the academic arena, we are one of 24 full members participating in the JISC's UK LOCKSS Pilot Strand http://www.jisc.ac.uk/whatwedo/programmes/programme_preservation/programme_lockss.aspx, partners in the JISC-funded Preserv (Preservation e-prints Services -- http://preserv.eprints.org/), and have actively contributed to the work of SHERPA-DP http://ahds.ac.uk/about/projects/sherpa-dp/.

Staff from Oxford University Library Services have played a significant role in several of the expert working parties established to assist the British Library with its development of a suitable digital preservation infrastructure to support electronic legal deposit -- most notably in the areas of IT systems and preservation metadata.

The Natural History Museum

The Natural History Museum are implementing a large storage system, a museum institutional repository and developing a policy for digital preservation. They are currently undertaking an information audit, intended to help set up a suitable structure for the retention and storage of documents which will be mirrored in the new digital storage system, along with data format information. This could pave the way for some meaningful action in digital sustainability.

Wellcome Library

The Wellcome Library is continuing its **Digital Curation in Action** (DCIA) project that will see born digital archival materials incorporated into its collections. The Library has implemented a Fedora digital object repository with the aim of building and testing ingestion and metadata creation workflows. The project is building an email collection as a test bed for both tools and processes. The project will also look at creating essential documentation such as donation/deposit agreements and preservation plans for born digital materials. Tool development this year will include ingestion tools, tools for automatically creating metadata describing archival hierarchical relationships in complex objects and tools to automatically create preservation metadata.

Central Laboratory of the Research Councils

CASPAR - Cultural, Artistic and Scientific knowledge for Preservation, Access and Retrieval - is an Integrated Project co-financed by the European Union within the Sixth Framework Programme. CASPAR will research, implement, and disseminate innovative solutions for digital preservation based on the OAIS reference model. For more details see: http://www.casparpreserves.eu/

CLADDIER - Citation, Location, And Deposition in Discipline and Institutional Repositories - is a JISC project with the Universities of Reading and Southampton. CLADDIER will build and deploy a demonstration system linking publications held in institutional repositories at Southampton University and the CCLRC with data holdings in the British Atmospheric Data Centre. For more details see: http://www.jisc.ac.uk/index.cfm?name= project_claddier&src=alpha

Arts and Humanities Data Services

SHERPA DP is a two year project funded by the JISC. The purpose of this project is to create a collaborative, shared preservation environment for the SHERPA project http://www.sherpa.ac.uk/ framed around the OAIS Reference Model. The project brings together the SHERPA institutional repository systems with the preservation repository established by the Arts and Humanities Data Service to create an environment that fully addresses all the requirements of the different phases within the life cycle of digital information.

Photo of Diplodocus: © Natural History Museum

BBC

The BBC Archive has been digitising its analogue audiovisual holdings for over 10 years, and has been running a large-scale digitisation effort for 7 years. So far all these digits have been stored on "broadcast media": digital videotape and standard audio CDs, plus a relatively small amount of audio and video digital files stored on DVD.

Now the BBC will start its first 'digital to digital' transfer, and its first use of data tape for storage. The source will be the Panasonic digital videotape format D3, which the BBC started using in the early 1990's, and which is now obsolete. We hold several hundred thousand D3 tapes, and will be transferring about 120,000. Because the source is digital data, BBC R&D have developed an automation system, which will detect whether all the bits have been read correctly, allowing one operator to make many parallel D3 transfers. This is a much more efficient workflow than for analogue originals, where an operator can only work on one tape at a time (in real time), and where a second, independent technician does a complete view/listen to the entire new tape for quality control (again in real time). As well as heavy automation for the transfer process itself, we will be writing the resultant data in full video quality to LTO-3 data tape -- NOT using lossy compression of any sort. We will use ZIP compression, which is lossless, and which saves about a factor of two on video signals. ZIP was chosen over lossless JPEG-2000, because the encoders are widely available (in fact built into our LTO-3 drives) and the decoders are almost universally available.

UK Data Archive

Published on 1 August 2006 the **Report of the East of England digital preservation project** describes a pilot project designed to investigate the issues which would need to be resolved if a regional digital repository were set up, and the costs which would arise from this. The report presents the results of two years' work and is probably the first realistic attempt to point the way forward. http://www.data-archive.ac.uk/news/publications/darp2006.pdf

Published in November 2005 was the jointly produced Report on the **Assessment of UKDA and TNA Compliance with OAIS and METS Standards.** This report resulted from collaboration between the UKDA, The National Archives (TNA) and the Estonian Business Archive. The award from the JISC allowed the UKDA and TNA to test their compliance with the Open Archival Information System (OAIS) Reference Model and allowed each organisation to place a recognised 'seal of approval' on established practices and systems. http://www.data-archive.ac.uk/news/publications/oaismets.pdf.

Also published in the period is the RELU (Rural Economy and Land Use Programme) Data Support Service's 'Guidelines on Data Management'. This glossy guide gives some brief information to researchers within the multi-research council funded RELU programme on how to manage and prepare data for preservation. It can be found on the RELU Data Support Centre's web at: http://relu.esds.ac.uk/reluaug2006.pdf

JISC

Ensuring long-term preservation of, and continuing access to, scholarly and educational resources is an important strategic area for JISC. As an organisation working on behalf of the funding councils and the academic community, JISC has undertaken various activities to help institutions address the challenges of digital preservation and to advance the UK digital preservation agenda. JISC's vision is to create a mix of national, and perhaps regional and institutional services, to support digital preservation. The strategy also recognises the importance of good records management and advocates a lifecycle approach towards the management of digital resources where the inter-dependencies between each stage of the lifecycle are being emphasised. Moreover, the strategy stresses the complexity of digital preservation and the importance of collaboration and partnerships with other national and international organisations.

To date, key initiatives by JISC in the area of digital preservation include:

- Feasibility and scoping studies covering major areas of JISC and institutional digital collections to assess preservation risks and retention criteria.
- Community calls to engage institutions directly in examining, testing or implementing emerging standards and tools in an operational environment. A Call for Proposals issued by JISC in 2004 (JISC, 2004) for example resulted in the funding of 11 projects in institutional digital preservation and asset management, with a specific focus on long-term strategies and procedures.

- JISC's UK-wide remit has given it a unique position to develop national initiatives and services on behalf of the sector to tackle the issues which are difficult for institutions to address individually. The Arts and Humanities Data Services (AHDS), the UK Data Archive (UKDA) and the DCC are national centres of expertise co-funded by JISC and the Research Councils to aid the creation, acquisition and preservation of digital resources and to provide research, advice and support services to UK institutions.

- Digital preservation is not solely an issue for JISC but an activity that involves many stakeholders. JISC has formed collaboration and partnerships with various organisations to jointly tackle the challenges of long-term digital preservation. In addition to co-funding the Digital Curation Centre, AHDS and UKDA, JISC is a full member of the Digital Preservation Coalitionand a founder member of the UK Web Archiving Consortium http://www.webarchive.org.uk/.

Southampton University

Preserv is investigating preservation strategies for institutional repositories, and is funded by JISC to the end of January 2007. The investigation has been founded on three broad principles:

- Repositories (or repository software) do not do preservation
- Digital preservation is difficult and best man aged by specialists – preservation service providers
- IR preservation must begin with IR policy

The project began with an idea of a model and process that would inform preservation services for repositories, as described in last year's DPC report. This year we looked beyond the idea of a 'black box', all-embracing concept of a preservation service, instead, considering the possibilities for preservation services based on lightweight, interacting distributed Web services.

The catalyst for this has been the emergence of the project's PRONOM/ROAR service, based on the PRONOM file format registry from The National Archives, and the Registry of Open Access Repositories maintained at Southampton University. This has led to the extension of file format identification beyond the project's partner repositories to hundreds of repositories automatically harvested by ROAR. This opens the prospect of allied Web-based preservation services, such as preservation planning and technology watch. This in turn could inform preservation action services such as migration.

This raises further questions. What coordination is required between services? Is that where client-facing service providers will emerge? What services can the market sustain?

To inform these questions we need to know about institutional repository needs. These ought to be set out in policy, where preservation policy should emerge naturally from general repository policy. In a survey of repository preservation and practice we discovered that while formal policy is patchy at best, preservation policy is almost non-existent. This has not deterred repositories from implementing practices with good preservation intent - such as restrictions on deposit formats - but with potentially awkward preservation consequences in terms of undocumented transformations from original, authored formats. These are the intended and unintended effects that will shape the market for preservation services.

As a result of the complex interactions we have identified between institutions, repositories and services, we are reaching the end of the project with a tantalising glimpse of what preservation services might become, even if these don't look exactly like the model we set out to explore.

Digital Curation Centre [DCC]

The DCC provides a national focus for research and development into curation issues and promotes expertise and good practice for the management of all research outputs in digital format.

The DCC produces a range of learning resources from high-level briefing papers, technology watch papers, case studies and interviews to detailed digital curation manual installments. The DCC also offers a varied timetable of events including information days and workshops and an Annual Conference. The first Digital Curation Conference was held in September 2006 and posed the question "What is Digital Curation?" The 2006 Conference will focus on Digital Data Curation in Practice addressing different aspects of the curation lifecycle including managing repositories, educating data scientists and understanding the role of policy and strategy.

As part of its Development activities the DCC is developing and implementing an OAIS-based Registry/Repository. This is an essential service for Institutions managing a repository using the OAIS (Open Archival Information System) Model. There are many synergies between the two organisations and the DCC's membership of the DPC ensure continuing close collaboration and cooperation.

> " ... the most beneficial and well presented, thought out course that I've ever attended in 10 years as a professional. "
>
> **DPTP Attendee**

> "Great course. Great presenters. The ongoing group exercise was a really excellent way of getting us to discuss some of the issues and stategies. Fabulous opportunity to meet, talk to and get to know people facing similar issues and problems. "
>
> **DPTP Attendee**

Summary Financial Statement

	£	£
Income		
Membership subscriptions	148,667	164,547
DPTP consultancy fees	15,880	
Expenditure:		
Salaries	74,239	
Pensions	5,470	
Recruitment costs	2,530	
Telephone	928	
Printing, postage & stationery	2,814	
Travel & subsistence	8,177	
Insurance	305	
Books	55	
Rent	7,431	
Internet/web site costs	12,166	
Computer costs	757	
Room hire	571	
Hospitality	4,218	
Forums & meetings	7,115	
Public relations	12,915	
Consultancy fees	11,500	
Audit & accountancy	1,787	
Legal fees	30	
Advertising & promotion	12,582	
UKNA project	55,000	
DP award	8,873	
Dissemination	2,100	
Bank charges	512	
		(232,075)
Depreciation		(1,135)
Deposit account interest		3,651
Taxation		(232)
Net loss for the year		£ (65,244)
General reserves:		
Pre-incorporation reserves		68,509
Reserves brought forward at 1/8/05		56.546
Designated funds transferred to reserves		12,643
Loss for the year		(65,244)
		£72,454

The DPC accounts are audited by J Matthiae & Co,

The Tythings, West Winterslow, Salisbury, Wiltshire, SP5 1RE

DPC Staff

Carol Jackson
Administration Manager

Najla Semple
Executive Secretary
appointed 6/3/2006

Kieron Niven
Administration Assistant
resigned 31/7/2006

Maggie Jones
Executive Secretary
resigned 28/2/2006

DPC Members

2005-2006

Full Members: British Library, Consortium of Research Libraries in the British Isles, The Council for Museums, Archives and Libraries, Digital Curation Centre, Joint Information Systems Committee of the Higher and Further Education Funding Councils, The National Archives, National Archives of Scotland, National Library of Scotland, Public Record Office Northern Ireland, Publishers Licensing Society, University of London Computer Centre, University of Oxford.

Associate Members: Arts and Humanities Data Service, BBC, Centre for Digital Library Research, Corporation of London, Council for the Central Laboratory of the Research Councils, House of Lords, MOD, National Electronic Library for Health, National Library of Wales, Natural History Museum, Online Computer Library Center, Open University, Oxford Archaeological Unit, Publishers Association, Research Libraries Group, Trinity College Library Dublin, UK Data Archive, University of Southampton, Wellcome Library.

Participation in the Coalition

Participation in the Coalition is open to all sectors including commercial, cultural heritage, educational, central and local government, and research. Members of the Coalition must be collective or not for profit organisations who can subscribe to the public mission, goals and principles of the Coalition but other organisations can participate in alliances.

There are three classes of participation: **Full Members, Associate Members**, and **Allied Organisations** or **Individuals**. Organisations can also **sponsor** Coalition activities, or projects and events to be undertaken by the Coalition.

Benefits of membership

- Attendance and priority registration at DPC Forums or Briefing days which are free or heavily discounted for members

- Participation in the development and running of digital preservation training programmes

- Access to the resources and services on the DPC website restricted to members only

- Shared support for the digital-preservation list, electronic edition of Preservation Management of Digital Materials, and Preserving Access to Digital Information (PADI)

- For full members, eligibility for a seat on the Coalition Board and the opportunity to help shape the strategic direction to the Coalition

- Shared membership on a common issue with organisations, drawing world-class expertise in the field from the archive, cultural heritage, education, IT, industry and library sectors

DigitalPreservation**Coalition**

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Promoting Digital Preservation

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