Preservation Programs and Initiatives

I t would be a Herculean task to itemize all of the significant digital preservation initiatives in the world, and in any case, such a list would soon be out of date. The following is only a sampling of some major, mostly national, initiatives in the United States, Europe, and the Pacific that bear watching. It should by no means be taken as inclusive.

United States

NDIIPP

In the United States, the major source of funding for digital preservation projects has been the National Digital Information Infrastructure and Preservation Program (NDIIPP). In 2000, Congress appropriated $100 million for the Library of Congress to develop and execute this program. The amount of $25 million would be immediately available, and the remaining $75 million would be made available as matching funds for nonfederal donations. According to Congressional requirements, the program "is a major undertaking to develop standards and a nationwide collection strategy to build a national repository of digital materials."[1]

Management of the program was given to LC's Office of Strategic Initiatives, which is responsible for American Memory and other digital library projects. After a period of fact-finding, "Preserving Our Digital Heritage: A Plan for the National Digital Information Infrastructure and Preservation Program" was published in 2002.[2] This document laid out the strategic vision of NDIIPP as ensuring "the access over time to a rich body of digital content through the establishment of a national network of committed partners, collaborating in a digital preservation architecture with defined roles and responsibilities." The

Library would carry this out by "investments and activities that will preserve digital content, build a resilient network of digital preservation partnerships, and begin development of the digital preservation architecture to support and enable these goals."

Most of the funds expended to date have been in the form of awards to competitive grant programs. An initial call for preservation partnerships granted eight awards totaling $14 million in 2004, followed in 2005 by ten joint LC–National Science Foundation research grants for another $3 million. In 2007, eight more awards were announced for projects to preserve American creative works. Future awards may be threatened by Congress's rescission in early 2007 of $47 million of NDIIPP funding to help resolve federal budget gaps.

> *NDIIPP*
> www.digitalpreservation.gov

United Kingdom

The Joint Information Steering Committee (JISC) is the primary source of funding for information technology in U.K. higher education and further education (postsecondary, nonuniversity education). One of the JISC's strategic objectives is to ensure the long-term availability of scholarly and educational resources. Consequently, JISC funding helps to support the Digital Curation Centre (DCC), the Digital Preservation Coalition (DPC), and other United Kingdom–wide initiatives, as well as supporting institutional projects such as InSPECT, described in Chapter 4.

Digital Preservation Coalition (DPC)

The Digital Preservation Coalition (DPC) is a membership organization formed to ensure the preservation of digital resources in the United Kingdom. The DPC focuses on raising awareness of the importance of digital preservation in government and society at large, and on education and training for information professionals. The DPC holds forums and briefing days, commissions studies and technology watches, and runs the Digital Preservation Training Programme, a set of hands-on instructional modules aimed at managers and operational staff.

Digital Preservation Coalition (DPC)
www.dpconline.org/graphics/index.html

Digital Curation Centre

The Digital Curation Centre (DCC) supports U.K. institutions of higher education in curating and preserving digital resources for scholarship and research, focusing on the life-cycle curation of digital databases. It aims to work not only with librarians, archivists, and information scientists, but also directly with the research community. It has an extensive outreach program that includes sponsoring workshops, conferences, and many other types of events, as well as publishing a digital curation manual, technology watch briefings, and blogs.

Digital Curation Centre
www.dcc.ac.uk

Netherlands

e-Depot

The National Library of the Netherlands, the Koninklijke Bibliotheek (KB), has long been in the forefront of digital preservation research and development. In the late 1990s it was the lead organization in NEDLIB, a collaborative project of European national libraries to build the infrastructure for a networked European deposit library. The KB's work with NEDLIB led it to develop the e-Depot, the first digital archiving system for academic e-journals, which became operational in 2003. E-Depot now archives the publications of Kluwer, Elsevier, Springer, and many other major STM and scholarly publishers. The e-Depot uses a system developed for the KB by IBM called the Digital Information and Archiving System (DAIS). The KB

also conducts research in active preservation strategies, and is particularly noted for its work with emulation techniques. In 2007 the KB and the Nationaal Archief of the Netherlands released Dioscuri, a x86 computer hardware emulator for digital preservation.

e-Depot
www.kb.nl/dnp/e-depot/e-depot-en.html

Dioscuri
http://dioscuri.sourceforge.net

Germany

nestor

Nestor (Network of Expertise in Long-Term Storage of Digital Resources) is an alliance of cultural heritage institutions committed to sharing information about digital preservation and coordinating preservation activities within the many federated states of Germany. It is led by the national library of Germany, Die Deutsche Bibliothek, and funded by the Federal Ministry of Research and Education. Nestor publishes studies, coordinates training, and sponsors several working groups, including one on the certification of trusted digital repositories.

nestor
www.langzeitarchivierung.de/index.php?newlang=eng

kopal

Kopal (Co-operative Development of a Long-Term Digital Information Archive) is a partnership between the national library, the Göttingen State and University Library, and IBM to develop an operational preservation and access repository. Although use of the system is initially restricted to the two partner libraries, the ultimate goal is to make "lockers" within the system available for the use of smaller institutions, and to encourage larger institutions to install their own versions. Kopal is designed around the DAIS system developed by IBM for the National Library of the Netherlands.

kopal
http://kopal.langzeitarchivierung.de/index.php.en

European Commission

DigitalPreservationEurope (DPE)

DigitalPreservationEurope (DPE) is one of three preservation programs funded by the European Commission under its Sixth Framework, along with PLANETS and CASPAR. The DPE is a confederation of project partners in eight European countries which attempts to improve coordination and collaboration across the various national preservation initiatives in Europe. Like the DPC, it holds workshops and training events and publishes articles and papers about many aspects of digital preservation. DPE maintains a registry of repositories and a registry of trainers with curation or preservation expertise. DPE recently launched an interesting program, the Research and Industrial Exchange Programme (DPEX), to improve communication between academic researchers and practitioners in industry. Researchers can apply to spend up to four weeks among practitioners at a host institution, and practitioners can apply to spend time with researchers.
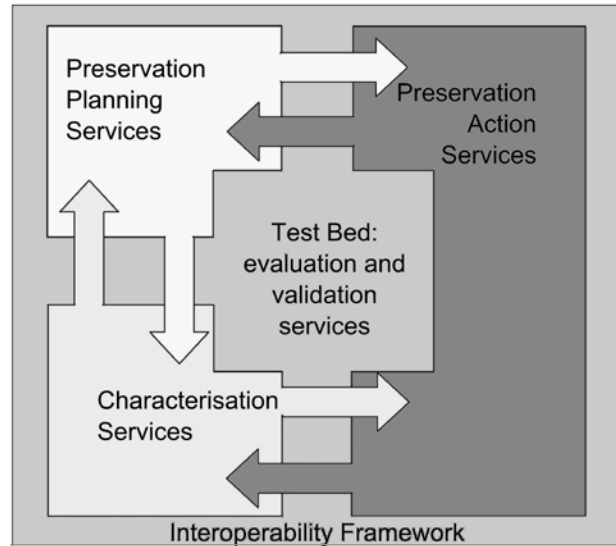
DigitalPreservationEurope (DPE)
www.digitalpreservationeurope.eu

PLANETS and CASPAR

PLANETS (Preservation and Long-Term Access through Networked Services) is a program of research and development involving sixteen partner institutions, including national libraries, national archives, major research universities, and private technology companies. It is coordinated by the British Library. The goal of PLANETS is to build an integrated framework of tools and services for preservation planning, format characterization, and preservation actions (see Figure 3). Preservation planning services, for example, include a technology watch service, an automated profiling service, and an advice service, along with a planning tool called PLATO. CASPAR (Cultural, Artistic and Scientific Knowledge for Preservation, Access and Retrieval) is a complementary project with the aim of building a "pioneering preservation environment" based strictly on the OAIS information model, particularly its concepts of representation information and designated community.

PLANETS
www.planets-project.eu

CASPAR
www.casparpreserves.eu

Figure 3
PLANETS Interoperability Framework. Reproduced by permission of the Planets Consortium

PLANETS, CASPAR, the DPE itself, and many other European digital preservation programs and initiatives are described and assessed in the DPE paper, "Competence Centres: State of the Art Review" (2007).

"Competence Centres: State of the Art Review"
www.minervaeurope.org/documents/comptence _centre_SoAR_1.pdf

Australia and New Zealand

National Library of Australia

The NLA was one of the first institutions to establish a Web archive when it launched the PANDORA archive of online Australian publications in 1996. PANDORA now contains more than 16,000 titles selected by the NLA and nine partner institutions. Workflow support for selection, harvesting, and archiving into PANDORA is provided by the PANDAS application, also developed at the NLA. NLA also maintains PADI (Preserving Access to Digital Information), an annotated subject gateway to preservation-related information. PADI and the DPC co-publish *What's New in Digital Preservation*, a quarterly current awareness service for preservation-related publications, activities, and events.

Australasian Digital Recordkeeping Initiative (ADRI)

Australasian Digital Recordkeeping Initiative (ADRI) is a collaboration between the National Archives of Australia, Archives New Zealand, and Australia's state and territory archives to ensure a common approach to digital record-keeping and archiving. The ADRI preservation strategy is based on converting records from formats created by commercial software programs to more stable, open formats. The National Archives of Australia developed Xena, an open-source software application that will identify a file's native format and convert it to a preferred format (see Chapter 4). The Public Records Office Victoria, another ADRI member, has developed extensive specifications describing the VERS electronic records strategy, which includes the VERS electronic record format, an encapsulation of certain allowable long-term preservation formats in XML.

Australian Partnership for Sustainable Repositories (APSR)

The Australian Partnership for Sustainable Repositories (APSR) is funded by the Australian federal government's Department of Education Science and Training. APSR provides a center of expertise to help research universities implement institutional repositories using DSpace or Fedora, and it sponsors a series of special projects designed to support repository management, sustainability, and interoperation. APSR holds training and informational events and publishes discussion papers, project reports, and a regular newsletter. The related ARROW project (Australian Research Repositories Online to the World) has been actively developing enhanced repository functionality, and established the ARROW Discovery Service, an OAI-based portal to the holdings of IRs across Australia.

Notes

1. Gail Fineberg, "FY 2001: Congress OKs $547 Million Budget for Library," *Library of Congress Information Bulletin* 60, no. 2 (Feb. 2001), www.loc.gov/loc/lcib/0102/index.html (accessed Dec. 12, 2007).
2. "Preserving Our Digital Heritage: A Plan for the National Digital Information Infrastructure and Preservation Program," Oct. 2002, www.digitalpreservation.gov/library/pdf/ndiipp_plan.pdf (accessed Nov. 17, 2007).