

APPENDIX B

SOURCES OF ADDITIONAL INFORMATION

Blue-Ribbon Advisory Panel on Cyberinfrastructure (Atkins, Daniel E. Chair). 2003. *Revolutionizing Science and Engineering through Cyberinfrastructure*. Report of the National Science Foundation Blue-Ribbon Advisory Panel on Cyberinfrastructure. January 2003. Available online at <http://www.cise.nsf.gov/sci/reports/atkins.pdf>

This report of an NSF advisory panel provides an evaluation of current major investments in cyberinfrastructure and its use, recommends new areas of emphasis relevant to cyberinfrastructure, and proposes an implementation plan for pursuing the recommendations.

Consultative Committee for Space Data Systems. 2002. *Recommendation for Space Data System Standards: Reference Model for an Open Archival Information System (OAIS)*. CCSDS 650.0-B-1, Available online at <http://www.ccsds.org/CCSDS/documents/650x0b1.pdf>.

This document was produced by the Consultative Committee for Space Data Systems (CCSDS) of the Organization for Standardization (ISO) and provides a reference model for archival systems that serve to preserve and maintain long-term access to digital information.

Dublin Core Metadata Initiative Web site. <http://dublincore.org/>

The Dublin Core Metadata Initiative (DCMI) is an organization dedicated to promoting the widespread adoption of interoperable metadata standards and developing specialized metadata vocabularies for describing resources that enable more intelligent information discovery systems.

Hodge, Gail and Bonnie Carroll. *Digital Archiving: The State of the Art, the State of the Practice*. April 1999. http://www.icsti.org/icsti/Dig_Archiving_Report_1999.pdf

This report, sponsored by the International Council for Scientific and Technical Information's Information Policy Committee and CENDI, provides information on the state-of-the-art and practice in digital electronic archiving in terms of policy, models, and best practices, with an emphasis on cutting-edge approaches.

Hodge, Gail, and Evelyn Frangakis. 2004. *Digital Preservation and Permanent Access to Scientific Information: The State of the Practice*. CENDI US Federal Information Managers Group. CENDI 2004-3. Available online at: http://www.icsti.org/icsti/icsti_reports.html

This report, by the International Council for Scientific and Technical Information (ICSTI) and the CENDI US Federal Information Managers Group, focuses on operational digital preservation systems specifically in science and technology (S&T). It considers the wide range of digital objects of interest to S&T, including e-journals, technical reports, e-records, project documents, and scientific data.

Inter-university Consortium for Political and Social Research. 2002. *Guide to Social Science Data Preparation and Archiving*. Available online at <http://www.icpsr.umich.edu/access/dataprep.pdf>

This guide is intended to help researchers document their datasets and prepare them for archiving. It describes in detail the processes involved in data creation and management, and in preparing materials for deposit in ICPSR. The project was supported by the Robert Wood Johnson Foundation.

Kurtzman, Howard S., Russell M. Church, and Jonathon D. Crystal. 2002. *Data Archiving for Animal Cognition Research: Report of an NIMH Workshop*. Workshop report available online: <http://www.brown.edu/Departments/Psychology/anicog/dar-25jul02.pdf>. Also published in *Animal Learning & Behavior* 30 (4), 405-412.

The workshop report provides a set of conclusions and recommendations concerning: (A) the impact of data archiving on research; (B) how to incorporate data archiving into research practice; (C) contents of data archives; (D) technical and archival standards; and (E) organizational, financing, and policy issues.

Lord, Philip, and Alison Macdonald. 2003. *e-Science Curation Report--Data curation for e-Science in the UK: an audit to establish requirements for future curation and provision*. Prepared for the JISC Committee for the Support of Research (JCSR). Twickenham, U.K. The Digital Archiving Consultancy Limited. Available online at: http://www.jisc.ac.uk/uploaded_documents/e-ScienceReportFinal.pdf

The study examines the current provision and future needs of curation of primary research data in the UK, particularly within the e-Science context.

Lyman, Peter and Hal R. Varian, *How Much Information?*, 2003. Retrieved from <http://www.sims.berkeley.edu/how-much-info-2003>.

This online study is an attempt to estimate how much new information is created each year. It covers information distributed in four storage media – print, film, magnetic, and optical – and seen or heard in four information flows – telephone, radio and TV, and the Internet.

MacDonald, Alison, and Philip Lord. 2003. *Digital Data Curation Task Force: Report of the Task Force Strategy Discussion Day, Tuesday, 26th November 2002*. Twickenham, U.K.: The Digital Archiving Consultancy. January 2003. Available online at: http://www.jisc.ac.uk/uploaded_documents/CurationTaskForceFinal1.pdf

This report summarizes the meeting of a United Kingdom task force organized under the auspices of the Joint Information Systems Committee's Committee for the Support of Research. The task force's goal was to define and structure a strategy for the "curation" of primary research data in the UK.

National Research Council. 1995. *Preserving Scientific Data on Our Physical Universe: A New Strategy for Archiving the Nation's Scientific Information Resources*. Washington: National Academy Press.

This report, under the auspices of the Commission on Physical Sciences, Mathematics, and Applications, was initiated at the request of the National Archives and Records Administration (NARA) and the National Oceanic and Atmospheric Administration (NOAA). It defines a set of goals, principles, and priorities, and generic retention criteria for archiving of physical science data.

National Research Council. 2003. *The Role of Scientific and Technical Data and Information in the Public Domain: Proceedings of a Symposium*. Board on International Scientific Organizations. Washington: National Academy Press. Available online at <http://www.nap.edu/books/030908850X/html/>

This symposium report covers the legal, technical and policy challenges in establishing an effective balance between the benefits of open access and the need for proper protection of intellectual property.

National Science Board. 2003. *Science and Engineering Infrastructure Report for the 21st Century: The Role of the National Science Foundation*. Arlington, VA: National Science Foundation. (NSB-02-190). February 8, 2003. Available online at: <http://www.nsf.gov/nsb/documents/2002/nsb02190/nsb02190.pdf>

This report presents the findings and recommendations developed by the Task Force on Science and Engineering Infrastructure of the National Science Board Committee on Programs and Plans. The task force assessed the current state of U.S. S&E academic research infrastructure, examined its role in enabling S&E advances, and identified requirements for a future infrastructure capability.

National Science Foundation and the Library of Congress. *It's About Time: Research Challenges in Digital Archiving and Long-term Preservation*. Final report, Workshop On Research Challenges In Digital Archiving And Long-Term Preservation, held April 12-13, 2002. Sponsored by the National Science Foundation, Digital Government Program and Digital Libraries Program, Directorate for Computing and Information Sciences and Engineering and the Library of Congress National Digital Information Infrastructure and Preservation Program. August 2003. Available online at http://www.digitalpreservation.gov/repor/NSF_LC_Final_Report.pdf

This workshop report provides a research agenda to address key technological and computer and information sciences challenges in digital archiving and preservation. In addition, a broader discussion of issues relevant to a national digital preservation program, including archival architecture and property rights considerations, technical challenges, and potential roles of institutional and agency players can be found at the website of the National Digital Information Infrastructure Preservation Program: <http://www.digitalpreservation.gov/>.

The Wellcome Trust. 2003. *Sharing Data from Large-scale Biological Research Projects: A System of Tripartite Responsibility*. Report of a meeting organized by the Wellcome Trust, held on 14–15 January 2003, Fort Lauderdale, USA. Available online at: <http://www.genome.gov/Pages/Research/WellcomeReport0303.pdf>

The report discusses how pre-publication data release can promote the best interests of science and help to maximize the public benefit to be gained from research. It delineates responsibilities of funding agencies, (data) resource providers, and resource users.

National Digital Information Infrastructure Preservation Program (NDIIPP) web site: <http://www.digitalpreservation.gov/>.

The National Digital Information Infrastructure Preservation Program, led by the Library of Congress working closely with other Federal partners, seeks to address a number of issues, including archival architecture and property rights considerations, technical challenges, and potential roles of institutional and agency participants.