

LONGEVITY OF ELECTRONIC/DIGITAL RECORDS

An Annotated Bibliography

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Abstract

Current resources, publications, web sites and projects on the longevity and preservation of electronic/digital records are provided, along with brief comments about sites and publications of particular relevance and interest.

Invited talk presented at the
DEPARTMENT OF ENERGY RECORDS MANAGEMENT CONFERENCE
6/4/01 -- 6/7/01, San Antonio, TX, USA

Work supported by Department of Energy contract DE-AC03-76SF00515

RESEARCH, CURRENT AND ONGOING

- The Cedars Project: CURL Exemplars in Digital Archives. Consortium of University Research Libraries, United Kingdom.
<http://www.leeds.ac.uk/cedars/DigPres.htm>

This project's web page contains a great deal of useful information. I particularly recommend their FAQ pages "Frequently Asked Questions about Digital Preservation" (<http://www.leeds.ac.uk/cedars/documents/MGW03.htm>), and "Digital Preservation and Further Information" (<http://www.leeds.ac.uk/cedars/DigPres.htm>)

- "Information Longevity" Compiled by Howard Besser. (<http://sunsite.berkeley.edu/Longevity/>)

Besser is an Associate Professor at UCLA's School of Education and Information Studies, and This site is his compilation of the latest research, thinking, and writing on digital longevity. Contains many links to sources not included in this page. Highly recommended.

- InterPARES Project. (<http://www.interpares.org>) International Research on Permanent Authentic Records in Electronic Systems.

"InterPARES is a major international research initiative in which archival scholars, computer engineering scholars, national archival institutions and private industry representatives are collaborating to develop the theoretical and methodological knowledge required for the permanent preservation of authentic records created in electronic systems."

From the InterPARES web-site

- Hedstrom, Margaret. "Understanding Electronic Incunabula: A Framework for Research on Electronic Records." *The American Archivist*, Summer 1991, p.p. 334-354.
- McGovern, Timothy J. and Helen W. Samuels. "Our Institutional Memory at Risk: Collaborators to the Rescue." *CAUSE/EFFECT*, Volume 20, Number 3, Fall 1997, p. 19-21, 49-50. (<http://www.educause.edu/ir/library/html/cem9735.html>)
- Shankar, Kalpana. "Towards a Framework for Managing Electronic Records in Scientific Research." *Archival Issues: Journal of the Midwest Archives Conference*. Volume 24, Number 1, 1999, p. 21-35.

METHODS AND PROCEDURES

- Arts and Humanities Data Service.
Digital Collections: A strategic policy framework for creating and preserving digital resources. Version 3.1, April 24, 1998. First Public Consultation and Review Draft.
(<http://ahds.ac.uk/manage/framework.htm>)

"Data creators who attach little or no value to the long-term preservation of the data resources they create are unlikely to adopt standards and practices, which will facilitate their preservation. This is particularly true where those standards and practices are different from or more costly to implement than those which promise the cost-effective development of a data resource capable of

fulfilling its intended use. Accordingly, ... awareness-raising...needs to be addressed toward data creators in a manner which appeals to their interests."

AHDS 1.2

- Besser, Howard. Digital longevity. Chapter for School for Scanning Book. 1999. (<http://149.142.5.6/~howard/Papers/sfs-longevity.html>)
- CD-ROM & Optical Disk Longevity. From Electronic Storage Media portion of COOL: Conservation On Line. Resources for Preservation Professionals. (<http://palimpsest.stanford.edu/bytopic/electronic-records/electronic-storage-media/#optical>)

See especially: NARA/Long-Term Usability of Optical Media: The National Archives and Records Administration and the Long-Term Usability of Optical Media for Federal Records: Three Critical Problem Areas.

(<http://palimpsest.stanford.edu/bytopic/electronic-records/electronic-storage-media/critiss.html>)

- Commission on Preservation and Access and The Research Libraries Group. Preserving Digital Information: Report of the Task Force on Archiving of Digital Information, May 1, 1996. (<http://www.rlg.org/ArchTF/>)
- Conseil international des archives - International Council on Archives. Guide For Managing Electronic Records From An Archival Perspective. Committee on Electronic Records, February 1997. (ICA Studies/Études CIA 8). (http://data1.archives.ca/ica/cer/guide_0.html)
- Deken, Jean Marie. Electronic Recordkeeping: An Introduction. Invited talk presented at the US Department of Energy Records Management Conference, Orange CA, 5/17/99 - 5/20/99. (SLAC-PUB-8152).& (pdf version at <http://www.slac.stanford.edu/pubs/slacpubs/8000/slac-pub-8152.html>); html version at <http://www.slac.stanford.edu/~jmdeken/papers/SLAC-PUB8152.html>)
- Deken, Jean Marie. Writ In Water? An exploration of the gap between Archival construct and practice in the machine-readable environment. Working With Knowledge Conference, Canberra, 1998. (SLAC-PUB-7811). (pdf version at <http://www.slac.stanford.edu/pubs/slacpubs/7000/slac-pub-7811.html>); or html version at <http://www.slac.stanford.edu/~jmdeken/papers/stama598.html>)
- Department of Defense Design Criteria Standard for Electronic Records Management Software Applications, DoD 5015.2-STD. (<http://jtc.fhu.disa.mil/recmgt/#standard>)
- Dollar, Charles. The Fermo Report on Authentic Electronic Records: Strategies for Long-Term Access. Presentation to the 1998 Managing Electronic Records Conference, November 2-4, 1998. Chicago, IL.
- Duranti, Luciana and Eastwood, Terry. The Preservation of the Integrity of Electronic Records. Luciana Duranti, Principal Investigator, Terry Eastwood, Co-Investigator, Heather MacNeil, Research Assistant. School of Library, Archival & Information Studies, University of British Columbia, Vancouver, BC. (<http://www.slais.ubc.ca/users/duranti>)
- European Communities DLM-Forum Electronic Records. Guidelines on best practices for using electronic information: How to deal with electronic data and electronic documents.

Luxembourg: Office for Official Publications of the European Communities, 1997.
(<http://www2.echo.lu/dlm/en/gdlines.html>)

- Kenney, Anne R. and Oya Y. Rieger. Preserving Digital Assets: Cornell's Digital Image Collection. *First Monday*. Volume 5, Issue 6. 2000.
(http://www.firstmonday.org/issues/issue5_6/kenney/index.html)

Presents specific recommendations to facilitate the long-term management of image collections.

- Rothenberg, Jeff.. "Ensuring the Longevity of Digital Documents. *Scientific American*, January 1995, pp. 42-47. "**....Digital information lasts forever or five years, whichever comes first...**"

Excellent summary of issues. Highly recommended.

- United Kingdom. Public Records Office. c. 1999. "Management, Appraisal and Preservation of Electronic Records" Volume 2, Procedures, Chapter 5, Preservation of Electronic Records.
(<http://www.pro.gov.uk/recordsmanagement/eros/guidelines/default.htm>)

COSTS

- Turley, R. "The Family History Library: Its Past, Present and Future in Identifying and Linking the World Family" 8 September 2000, Keynote Address, Federation of Genealogical Societies Annual Conference. (<http://www.lds.org/news/article/1,5422,116-1954,FF.html>)

"Consider it this way. Suppose that the media for storage of digital information can last ten years but that in order to be safe, you choose to migrate the information after only five years. During the first five years after you begin capturing information digitally, you have no migration burden. But the sixth year, in addition to continuing the capture of original information, you would be forced to migrate onto new media information captured during year one. The seventh year you must migrate the information from the second year, the eighth year from the third year, the ninth year from the fourth, and the tenth year from the fifth. By the time you reach the eleventh year, you must migrate not only the information from the sixth year, but also again from the first year and so on. And thus it goes, with the migration burden increasing incrementally with each half decade that passes. The burden imposed by such migration could easily consume vast resources that might otherwise be dedicated to the capturing of original information...

In order to prevent this scenario from occurring, we have elected to continue the use of microfilm technology until such time as the underlying media for storing digital information achieve archival shelf life, meaning that they can last for decades or centuries, just as microfilm does today."

ACKNOWLEDGEMENTS

I wish to thank David Gaynon (LLNL), Laura O'Hara, and John Stoner (LBNL) for their review of and comments on this compilation. This work was supported by the US Department of Energy Contract No. DE-AC03-76F00515.