The Transition to Digital Scholarship: Addressing e-Journal Preservation

Ken DiFiore, MLS
Director of Library Relations

ANKOS 8th Annual Meeting
April 25-27, 2008
Anadolu University
Presentation Topics

• “The Changing Landscape”
• Challenge of e-Journal Preservation
• Basics of Digital Preservation
• E-Journal Preservation Programs & Initiatives
Publisher’s Shift Toward e-Publishing

- Ulrich’s International Periodicals Directory (June 2006):
  - 23,187 active and refereed journal titles (low).
  - 14,338 active, online, and refereed journal titles (62%) (38% print only)
  - 1,429 open access titles (10% of online journals).

- Directory of Open Access Journals (February 2007):
  - 2,549 peer-reviewed OA journals, up 1,100 titles from 2005.

- British Library study (2003):
  - By 2016 half of all serials will be e-only.

- Elsevier Science Direct (2006):
  - 40% of current subscription revenues from e-only subscriptions
User’s Preference for e-Journals

• Ithaka Faculty Study (2003):
  – 78% of 7,400 faculty surveyed: e-Journals are “invaluable research tools”.

• Carol Tenopir (2003):
  – 2/3 of scientist’s reading from e-resources; astronomers 80%.

• The convenience and accessibility of e-resources enhances teaching and research and is accelerating the transition from print to reliance upon e-journals.
Libraries Transition to e-Resources is Well Underway

- E-resources consume a growing portion of total library materials expenditures.

Libraries Transition to e-Journals

• ARL Member Survey (2005):
  - 98% of contracts have provision for some form of back-file access if a library cancels its subscription.

• Publishers Communication Group (2004):
  - 155 academic librarians surveyed worldwide, 84% cancel print when e-version is available.
Unique Characteristics of e-Journals

- Digital resources are now generally licensed. Libraries no longer maintain ownership as with print.
- Usability of digital content is technology dependent.
- Inherent fragility due to the pace of technological change.
- Multitude of electronic formats.
The Challenge of e-Journal Preservation

• Connecting users to resources assumes that resources have been well preserved, a task traditionally done at the local level.

• Preservation and access are separated and the ownership of the preservation task is less clear.

• An array of technological and organizational approaches is needed.

• The scale of digital content requiring preservation suggests that the responsibility will be distributed across multiple preservation agents.
The Challenge of e-Journal Preservation

- Digital preservation requires significant infrastructure – technological, organizational, and staff expertise – and an economic model to support the ongoing work.

Stage 1
- Low Awareness
- Backup
- Make Copies

Stage 2
- Low-Moderate Awareness
- Formal Policies
- Minimal Metadata

Stage 3
- Moderate Awareness
- More Metadata, Data Integrity & Authenticity

Stage 4
- High Awareness
- Standards, Strategic Management

Stage 5
- Advanced Awareness
- Integrated organization of people, process, and technology

Defining Digital Preservation

• Many definitions!

• Set of activities aimed towards ensuring access to digital materials over time:
  – Ongoing, managed activities
  – Combines policies, strategies, and actions
  – Lifecycle management from point of creation.
Digital Preservation versus “Digitization for Preservation”

- Digitization of print and other analog materials to make content more widely available without additional damage to fragile materials.
- Digitization for Preservation results in digital materials which must themselves be preserved!
Goals of Digital Preservation

- Availability
- Identity
- Understandability
- Fixity
- Authenticity
- Viability
- Renderability
Primary Digital Preservation Strategies

- Emulation
- Migration
- Byte Preservation
General Digital Preservation Practices

- Repository Functional Model
  - System Open Archival Information Systems (OIAS)

- Preservation Metadata
  - Metadata Encoding and Transmission Standards (METS)
  - PREMIS

- Trustworthiness and Certification
  - RLG-NARA
Overview of E-Journal Preservation Programs & Initiatives

• United States
  – Andrew W. Mellon Foundation awarded series of E-journal archiving planning grants.
  – JSTOR
  – Portico
  – (C)LOCKSS: (Controlled) Lots of Copies Keep Stuff Safe

• United Kingdom
  – Digital Preservation Coalition
  – British Library
  – Digital Curation Centre
Overview of E-Journal Preservation Programs & Initiatives

- Netherlands: Koninklijke Bibliotheek (KB) e-Depot for long-term archiving and permanent access to Dutch electronic publications.

- Germany:
  - Network of Expertise in Long-term Storage of Digital Resources (nestor)
  - Cooperative Development of a Long-term Digital Information Archive (kopal)
Overview of E-Journal Preservation Programs & Initiatives

- European Commission
  - Digital Preservation Europe (DPE).
  - Preservation and Long-Term Access through Networked Services (PLANETS).

- Australia and New Zealand
  - National Library of Australia