Sustainability and Digital Preservation

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Technology, such as Ex Libris’s Rosetta digital preservation system, is an important part of digital preservation. However, it is but one part. Other aspects include policies, procedures, and financial planning. These administrative issues need to be in place to help assure long-term sustainability of any digital preservation program. This presentation will discuss ways in which Binghamton University is preparing sustainable digital preservation. Examples include ensuring that there are sustainable funding streams and administrative policies and procedures in place for long term digital preservation.
Binghamton University, one of four comprehensive doctoral research universities within the State University of New York, is recognized for stellar academics, an international focus, high graduation rates and overall value.

- Undergraduates: 12,356
- Graduate students: 2,952
- Average SAT score: 1220-1385
- Average ACT score: 27-30
- Top 25% of high school class: 87.9%
- In the past 10 years, 91-93% of freshmen returned for their sophomore year
- Students of color: 33.3%
- International students: 10%
- Students come from all 50 states and 100 countries
Library Collections

- Digitized Collections
  - Saeedpour Kurdish Collection
  - Reinhardt Collection
  - Multiple Letter Collections
  - Dickinson, Green, Link, etc.
  - Multiple postcard and photograph collections
- Born Digital
  - LibraryLinks
  - Music Recitals (on magnetic tape)
University Collections

- Digitized
  - Faculty Research and Archives
- Born Digital
  - Capstone Projects
  - Online Journal of Rural Nursing and Health Care
  - Office of Communications
    - Publications (Dateline, Inside BU)
    - University Photographs
  - Public Archeology Facility
    - Actually both born digitized and some digitization
    - Small data (Political Science)

We are also working with faculty on grants that will include preservation of lab notebooks, datasets, learning materials, conference presentations. and other scholarly materials.
Three Aspects of Digital Preservation

- Management
- Technology
- Content

All three are important, but without Management, Digital Preservation *will not be sustainable*
Sustainability

- An idea that “creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.” [1]
- Sustainable digital preservation is meant to ensure the “continuity of digital resources within resource levels over the required period of time.” [2]
Factors Affecting Digital Preservation

- Corrado and Moulaison have identified four factors affecting digital preservation sustainability:
  - Organizational Factors
  - Financial Factors
  - Social and Societal Factors
  - Technological Factors
Organizational Factors

• Align digital preservation initiatives with the organization’s goals and mission
  • Digital preservation “technology is not the solution, only part of it.” [4]
  • Many of the benefits of Digital Preservation easily align with the mission of Libraries, but may not be readily apparent or realized right away

• Communication and Advocacy (It is not always “Build it and they will come”)
Financial Factors

• Cost Models
  • Some work has been done, but more is needed...
    • Danish Royal Library’s Cost Model for Digital Preservation
    • Netherland’s Data Archiving and Networked Service (DANS) Cost of Digital Archiving
    • LIFE Model (UK)
    • See the “Digital Preservation and Data Curation Costing and Cost Modelling,” OPF Knowledge Base Wiki for more information about these and other models http://wiki.opf-labs.org/display/CDP/Home.

• Unpredictable changes in technology
• Forever is a long time
• Burns, Lana, and Budd wrote earlier this year that “little is known about the costs academic libraries incur to implement and manage institutional repositories” (with or without Digital Preservation)
Financial Factors

- Return on Investment
  - Need to factor not just the costs, but what the institutional gets from its investment
  - Home much was spent creating the materials?
- Financial resources need to be ongoing
The Challenge of Sustainable Funding

- State financial support for public colleges & universities is declining
- Funding digital preservation is not a high priority in a campus competitive financial environment
  - The false assumption that distributed file backup is sufficient for safeguarding data creates no sense of urgency to do more.
- Instances of digital preservation funding are frequently linked to advocates with access to non-reoccurring funds
  - Sustainability depends upon demonstrated success to key stakeholders with discretionary funds
- Endowment funds can provide annual interest payments to supplement institutional funds
  - Prospective donors must be educated about digital preservation
“Improving Postsecondary Education Through the Budget Process: Challenges & Opportunities”

**Figure 3:** Annual Percent Change in Higher Education Appropriations, FY1960–FY2012

Social and Societal Factors

- Legal mandates to preserve content
- Copyright and other intellectual property concerns
- Transparency in government
  - Also filtering down to Universities who receive government funding for research
    - NSF and NIH in the United States
    - Research Councils UK’s open-access policy
    - Australian National Data Service
- Expectations of...
  - Content creators
  - Content users
Technology is always changing
- “Preservation in the digital terrain is always and already an act of will, and one that takes ongoing work for every asset.” [5]

File Formats

How sustainable is your technology?
- We use Rosetta, which we believe is sustainable
- Still important to contemplate an exit strategy
For all of these, documentation is key
- People change
- Audits, transparency

Trusted Digital Repository certification is mostly about documented policy and procedures

Only 1 of the 16 guidelines for the Data Seal of Approval specifically mentions technology and even that is not only technology
- DSA Guideline 13: “The technical infrastructure explicitly supports the tasks and functions described in internationally accepted archival standards like OAIS.”
References