DIGITIZATION FOR ACCESS AND PRESERVATION: Role of Academic and Research Librarians

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OUTLINE

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Introduction
“The conversion of all sorts of cultural contents into bits and bytes opens up a completely new dimensions of reaching traditional and new audiences by providing access to cultural heritage resources in ways unimaginable a decade ago.”

-- Mulrenin and Geser, 2001
DIGITIZATION...

Involves the process of making non-digitally created materials available in digital format.

“The process of making an electronic version of a ‘real world’ object or event, enabling the object to be stored, displayed and manipulated on a computer, and disseminated over networks and/or WWW” (Eadie, 2005)
Digitization does not always mean scanning.

Digitization can involve simple data conversion from catalog cards or paper to digital form, video and audio migration to digital form, and so on.
Digital Asset: Characteristics and Qualities

» Can be linked to other materials to create multimedia

» Is not dependent upon spatial or temporal barriers

» Can be stored and delivered in a variety of ways

» Can be copied limitless times without degradation of the original
Is there a need to convert analogue to digital?

Why convert or digitize?

What can be converted?
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DIGITIZATION PROCESS
Model: Library Digitization, Digital Library and Library Hybridization (Ayanbode, 2001)
Process of Digitization

1. Policy enactment
2. Policy approval
3. Planning, budgeting and monitoring
4. Acquisition of appropriate technology
5. Administrative decisions on the procedure to be adopted

(Fabunmi, Paris and Fabunmi, 2006)
Process of Digitization

6. Sensitization, psychological preparation and retraining of staff

7. Copyright permission

8. Implementation and trial testing

9. Evaluation of project

(Fabunmi, Paris and Fabunmi, 2006)
Process of Digitization

Digitization policy serves as a reference point and guide for project implementation. Contains the goals of the digitization project.

Approved by appropriate authorities before project implementation.

(Fabunmi, Paris and Fabunmi, 2006)
Planning, budgeting and monitoring

Budgets for digitization projects should include the following categories:
- salaries, wages, and benefits;
- staff training;
- equipment and supplies;
- services, contracts and legal fees;
- overhead and indirect costs;
- maintenance, licenses, communication charges;
- contingency

(Fabunmi, Paris and Fabunmi, 2006)
Administrative decisions on the procedure to be adopted

Decision has to be made on the mode of operation:
- Establish links with existing digital contents or libraries
- Digitize in-house
- Outsourcing

(Fabunmi, Paris and Fabunmi, 2006)
Process of Digitization

(Fabunmi, Paris and Fabunmi, 2006)

- Sensitization, psychological preparation and retraining of staff
  - Learn how to manage change
  - Educate library staff and allay their fears

Copyright permission

- Seek copyright permission
- If an item is still under copyright, it can be digitized for in-house use only.
Process of Digitization

(Fabunmi, Paris and Fabunmi, 2006)

Evaluation of project

✓ Make periodic evaluation of the project
✓ Based on the set goals
✓ Number of digitized items
✓ Quality of digital content
✓ Use of digital contents by users
Benefits of Digitization

- Broader and enhanced **access**, to a wider community
- **Preservation** endangered library resources
- Increase **usage** of library materials especially those are special collections and records with archival value
- Improvement of the efficiency of information **search mechanisms**
- Generate new and exciting **research opportunities**
Wrong Motives for Digitization

• Substitute for microfilming
• To save space
• To save money
• “Because we can”
• Substitute for collection development
Guidelines for Digitization Projects

UNESCO, IFLA and ICA suggest that digitization projects should be:

- **User driven**, based on a high demand for enhanced access to content
- **Opportunity driven**, when money is available for a particular initiative
- **Preservation driven**, when there is a need to protect fragile materials from handling
- **Revenue driven**, where there is an opportunity to generate income from digital resources

(Hughes, 2004)
Before you start, **ask yourself**

**Is the project?**

- **User driven**: high demand for (enhanced) access
- **Opportunity driven**: money available so we can do something
- **Preservation driven**: high demand on fragile objects
- **Revenue driven**: we might make some money from it
Before you start, ask yourself

Do we have?

The money
The skills
The capacity
The technical infrastructure
Before you start, ask yourself

Carry out

Benchmarking study
Copyright study
Feasibility study
Technical pilot study
What can be digitized?

- Old manuscripts
- Research projects
- Photo images
- Analogue maps
- Non-live musical recordings
- Government official gazettes
- Oral history resources
- Newspapers
- Artifacts
- Art
- Rare books
- Biographies
- Microfilm
- And many more…
Value
Does the material have sufficient intrinsic value?

Condition
Are digital format needed because the original materials are unserviceable?

Use
Are materials in demand? How are they used, and with what frequency, by which users?

Characteristics
Do the physical formats of the materials lend themselves to digitization at an acceptable high level of reproduction?

Criteria for Selection
(Beagrie, 2004; Rosenthal: 2005; Hughes, 2004)
Digitization for PRESERVATION
Digitization for Preservation

• It creates valuable new digital asset worthy of long-term preservation.


(Conway, 2010)
Digitization for PRESERVATION

- Lessens use of originals?
- Long-term commitment to maintain files
  - Technology, funding, equipment, personnel needs to maintain accessibility to files
- Serious concerns re: fragile materials as demands increase to have them in digital format
  - Need to consider preservation/conservation requirements of originals prior to digitization

(Trinkaus-Randall, 2010)
There is **considerable unease** within the library sector at the prospect of relying on a **digital copy** as a substitution for other formats.

Many librarians felt that **film** still provided the **best preservation medium**.

(Scoping the Future of the University of Oxford’s Digital Library Collections)
There was a **general acceptance** among librarians that “digital surrogates could assist in deflecting demand away from handling originals.”

“... digitization should not be allowed to **detract** from **traditional conservation** efforts to preserve the original.”

(Scoping the Future of the University of Oxford’s Digital Library Collections)
Long term institutional commitment:

“combines policies, strategies and actions to ensure access to reformatted and born digital content regardless of the challenges of media failure and technological change.

The goal of digital preservation is the accurate rendering of authenticated content over time.”

--Association for Library Collections and Technical Services (ALCTS) Preservation and Reformatting Section
“Digital preservation protects the value of digital assets, regardless of whether the original source is a tangible artifact or data that were born and live digitally.”

(Conway, 2010)
Digitization for ACCESS
Primary purpose of DIGITIZATION

Improve Access

Valuable information
Digitization for ACCESS

- Simultaneous access to digital asset by multiple users

- Efficient comprehensive search to digitized library resources from anywhere at any time
Digitization makes the invisible to be visible.

Digital information can be accessed without any geographical limitation, thus providing remote access.

It removes the problem of distance, as users do not have to be physically present in the library.
Digitization for Access

- Clearer image than microfilm and easier to read
- Provides excellent surrogates of originals
  - Exhibitions, research, publicity, etc.
  - Easily retrieved and manipulated, transmittable, and transportable from a repository to the sites of research, presentation, and teaching.
- Increasing researcher’s expectations on availability of materials in digital format

(Trinkaus-Randall, 2010)
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LIBRARIANS
in Digitization Project
Responsibilities of Librarians

- Managing digitization projects and staff
- Fundraising and grant writing
- Managing budgets
- Writing job descriptions, hiring staff
- Setting goals and targets
- Writing documentation and reports
Responsibilities of Librarians

- Selecting materials, in cooperation with subject specialists
- Conservation assessment of originals
- Preservation handling or treatment where necessary
- Creating basic catalog records or tracking lists where necessary
- Evaluating copyright status of originals
Responsibilities of Librarians

- Cataloging and indexing digital objects
- Monitoring of digitization procedures and performing of quality assessment
- Developing delivery mechanisms and finding aids
- Preservation and archiving of digital objects
- Instruction and end-user support
Challenges and Issues of Library Digitization
Challenges and Issues of Library Digitization

- Sourcing of sufficient funds
  - The proportion of additional materials to be digitized will depend upon the available fund.
  - Allocation of adequate fund by the appropriate authorities
Challenges and Issues of Library Digitization

- Digitization entails policy initiation, setting priorities and planning
- Libraries need to do benchmarking of digitization projects
- Managing staff resistance to change
- Orientation of library users
Challenges and Issues of Library Digitization

- Copyright permission to digitized library materials
- Institutional buy-in
- Technical drawbacks
- Plagiarism
- What access is allowed
- Electronic Theses/ Dissertations & publishers

http://reyalsluna.blogspot.com/
Threats to Digital Assets

Storage medium deteriorate over time

Obsolescence of the carrier

File format obsolescence

Older versions of software may not work on new hardware or operating system

(Beagrie, 2004; Rosenthal: 2005)
Threats to Digital Assets

• Valuable digital assets of institutions are at risk of being inaccessible.

• The success of preserving digital materials requires standards for file formats.
Digitization of library resources “is changing the ways in which collections are used and accessed.”

(Hughes, 2004, pp.29-30)
“It is important to **evaluate** whether or not digitization is **truly worthwhile** before undertaking a digitization initiative.”

(Hughes, 2004, pp.29-30)
“Valuable digital resources, which will bring prestige to the institutions that create and maintain them, will be those that can support scholarship without any loss of the benefits of working with the originals.”

(Hughes, 2004, pp.29-30)


Lee, S. Scoping the future of the University of Oxford’s digital library collections. Available in the Internet (accessed April 1, 2012)


Thank you!

Questions?

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