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# SI 640 DIGITAL LIBRARIES AND ARCHIVES

2010 Week 14: Summation and Sustainability

# THEMES FOR THIS WEEK

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- Incentives to preserve
- Sustainability
- Library and archive

“Consideration of sustainability at the macro-level helps [see] digital preservation [as] something resembling a coordinated "ecosystem" of activity.”

*Lavoie , “The Fifth Blackbird,” 2008.*

# INCENTIVES TO PRESERVE

## Roles in Preservation

1. Incentives
2. Sustainability
3. Definitions

**OAIS:** Producer – Manager – Consumer

**Economics:**

Rights Holder (R) – Archive (A) – Beneficiary (B)

**authority + willingness + need = incentive  
to preserve**

# INCENTIVES TO PRESERVE

## 1. Incentives

## 2. Sustainability

## 3. Definitions

- Centrifugal:  $(R) - (A) - (B) - \text{JStor}$ 
  - Positive ext. (subsidy/fee) + variation (exclude low)
- Supply-side:  $(R - A) - (B) - \text{Elsevier self-archiving}$ 
  - Positive ext. (fee) + variation (service levels; fees)
- Demand-side:  $(R - B) - (A) - \text{I-Vault!}$ 
  - Free-riding (fee) + variation (service levels)
- **Consolidated:  $(A - B) - (R) - \text{KB / Elsevier}$** 
  - Positive ext. (subsidy by archive)
- Centripetal:  $(R-A-B) - \text{Institutional repository}$ 
  - **Free-riding (exclude non-payers)**

# INCENTIVES TO PRESERVE

- 1. Incentives
- 2. Sustainability
- 3. Definitions

Complications in establishing incentives

- **Positive externalities** (centrifugal, supply, consolidated)
  - Preservation procedures benefit external party
  - Only sufficient activity to satisfy rights holder
- **Free-riding** (centripetal, demand)
  - Multiple organizations hold copies
  - “preservation chicken”
- **Variation in demand** (centrifugal, supply, demand)
  - High-end versus low-end expectations

*Market failure results when incentives are diminished.*

# INCENTIVES TO PRESERVE

- 1. Incentives
- 2. Sustainability
- 3. Definitions

## Overcoming disincentives to preserve

- Positive externalities
  - Subsidies to rights holder or archive
- Free-riding
  - Exclude via subscription
  - Deny access to non-contributors
- Variations in demand
  - Offer various levels of preservation service @ varying costs



# LOCALIZED INCENTIVES

- 1. Incentives
- 2. Sustainability
- 3. Definitions

Universities are diverse organizations.

- Many stakeholders with competing interests (R)
- Many possible technology players (A)
- People who benefit to different degrees (B)

What if...

- Multiple relationship sets exist locally
- Incentives can be modeled as a closed system
- Multiple incentive arrangements could co-exist

# TO SUSTAIN

1. Incentives

2. **Sustainability**

3. Definitions

- To support the efforts, conduct, or cause of...
- To uphold the validity or rightfulness of..
- To keep from failing or giving away
- To cause to continue in a certain state
- To keep going, keep up
- To provide for the life or bodily needs of
- To provide for the upkeep

# BLUE RIBBON TASK FORCE ON SUSTAINABILITY

1. Incentives

2. **Sustainability**

3. Definitions

- What to preserve
  - Scholarly discourse
  - Research data
  - Commercially owned cultural content
  - Collectively created Web content
- Who to preserve it
  - Owners or proxies (for creators or users)
- How to pay for it
  - Internal budgeting; public funding; voluntary contributions; fees for preservation; fees for access

# BLUE RIBBON TASK FORCE ON SUSTAINABILITY

•BRTF, *Sustainable Economics for a Digital Planet*, 2010.

1. Incentives
2. Sustainability
3. Definitions

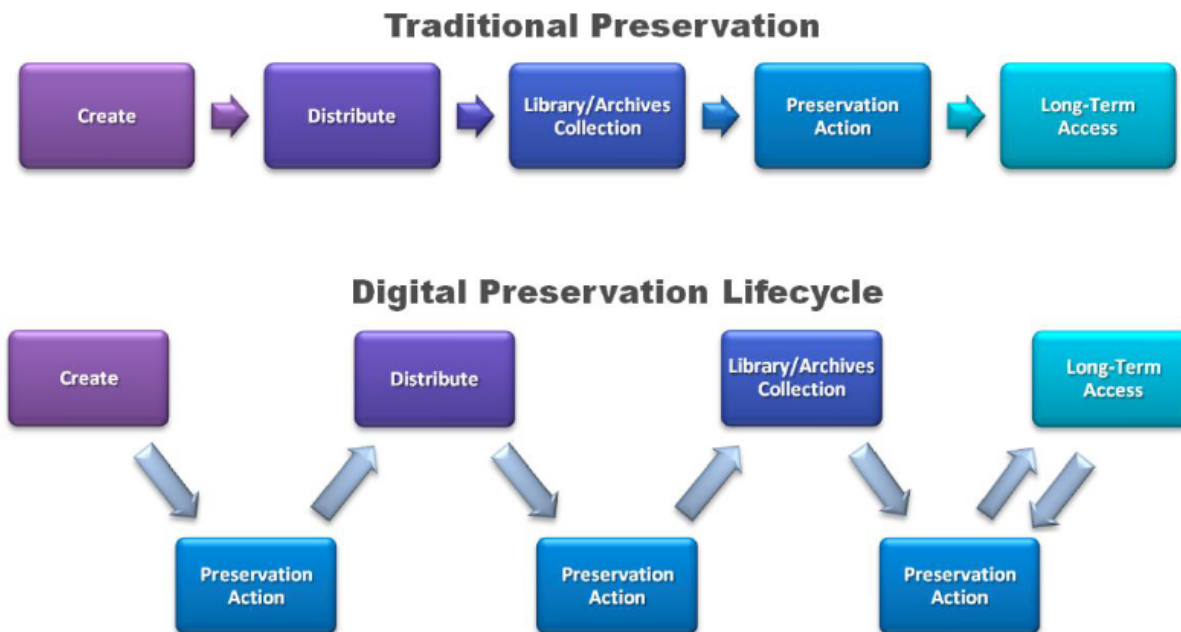


FIGURE 2.3 **Traditional and Digital Information Lifecycles**

In contrast to traditional preservation, digital preservation is a dynamic process with multiple actions taken over the course of the digital lifecycle.

Source: Preserving Our Digital Heritage: The National Digital Information Infrastructure and Preservation Program 2010 Report. A Collaborative Initiative of the Library of Congress, forthcoming. Used with permission.

# BLUE RIBBON TASK FORCE ON SUSTAINABILITY

1. Incentives

2. **Sustainability**

3. Definitions

- A range of solutions
  - Timely action (on the lifecycle of resources)
  - Recognition of benefits
  - Selection strategies (greatest promise of future use)
  - Incentives (mandates, \$, IP, non-exclusive rights)
  - Organization and governance (deal with the free-rider problem)
  - Resource allocation (norms and expectations of users)

# CONVERGENCE CONCEPTS

- 1. Incentives
- 2. Sustainability
- 3. **Definitions**

- “... convergence culture represents a shift in the ways we think about our relations to media.” (p. 22)
  - Media convergence (flow of content across platforms; industry cooperation; audience migration)
  - Participatory culture (profound cultural shift in consumer behavior)
  - Collective intelligence (consumption as a collective process)

Digital libraries and archives are born, live, and survive in the new convergence culture. If they do not, they will not persist.

# DLF DEFINITION

- 1. Incentives
- 2. Sustainability
- 3. Definitions

*Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities.*

*Donald J. Waters, What Are Digital Libraries? CLIR Issues (July/Aug 1998)*



# BORGMAN ON DIGITAL LIBRARIES

1. Incentives
2. Sustainability
3. **Definitions**

## Research and practice: different worlds

- “Digital libraries are a set of electronic resources and associated technical capabilities...
  - Focuses on the technical system
- “Digital libraries are constructed by and for a community of users...”
  - Focuses on process and service

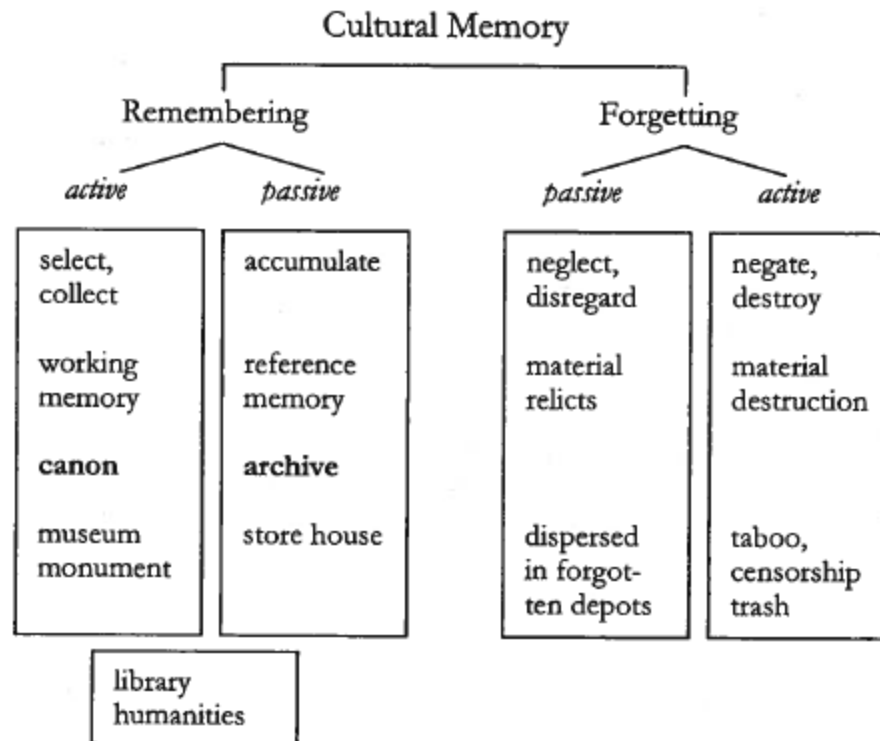


Please see original image  
of [Christine L. Borgman](#)



# REMEMBERING AND FORGETTING

1. Incentives
2. Sustainability
3. Definitions



# THE CANON AND ARCHIVE

- 1. Incentives
- 2. Sustainability
- 3. Definitions

- “remembering is the exception, which ... requires special and costly precautions.” (p. 98)
- Archive: “cultural reference memory”
  - “The archive is the basis of what can be said in the future about the present when it will have become the past.” (p. 102)
  - “The distinction between a cultural working memory [canon] and a cultural reference memory [archive] is exacerbated with the existence of the historical archive.” (p. 104)
  - “What is forgotten need not necessarily be lost forever.” (p. 106)

# Thank you!

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