OCLC Research: what we do

Supports global cooperative by providing internal data and process analyses to inform enterprise service development (R&D) and deploying collective research capacity to deepen public understanding of the evolving library system.

Special focus on libraries in research institutions:

in US, libraries supporting doctoral-level education account for <20% of academic libraries; >70% of library spending changes in this sector impact library system as a whole; collective preservation and access goals, shared infrastructure, &c.
OCLC Research: who we are

• ~45 FTE with offices in Ohio, California and the UK

• Sponsored by OCLC and a partnership of research libraries around the world that share:
  • A strong motivation to effect *system-wide change*
  • A commitment to *collaboration* as a means of achieving collective gains
  • A desire to *engage internationally*
  • Senior management ready to provide *leadership* within the transnational research library community
  • Deep and rich *collections* and a mandate to make them accessible
  • The *capacity* and the will to contribute
Our collaborators

**Then:**
- ARL set the tone; size matters
- Collections of distinction
- Doing the same, better
- Change is possible

**Now:**
- Nimble institutions, unburdened by legacy print mandate
- Distinctive purpose
- Transforming the portfolio
- Change is imperative

*A new coalition is needed to advance the research library agenda*
**System-wide Organization**

Our objective here is to use our perspective and data to understand, prepare for and help libraries, archives and museums advance through utilizing cooperative models of acquiring, managing and disclosing collections.

See All the Activities for this Theme
System-wide organization

Research theme addresses “big picture” questions about the future of libraries in the network environment; implications for collections, services, institutions embedded in complex networks of collaboration, cooperation and exchange

- Characterization of the aggregate library resource
  Collections, services, user behaviors, institutional profiles
- Re-organization of individual libraries in network context
  Institutions adapting to changes in system-wide organization
- Re-organization of the library system in network context
  ‘Multi-institutional’ library framework, collective adaptation
Defining characteristics of SO activities

- Emphasis on *analytic frameworks and heuristic models* that characterize (academic) library service environment as a whole
- Identifying and interpreting *patterns* in distribution, character, use and value of library resource; implications for future organization of collections and services
- Provides *context for decision-making*, not prescriptive judgments about a single, best course of action
- *Shared understanding* of how network environment is transforming library organization on micro and macro level
Exemplar:
Re-organization of library system

- Externalization of print repository function facilitates redirection of institutional resources; new scholarly record

- Cloud Library analysis (OCLC, Hathi, NYU, ReCAP)
  - Case study in *de-composition of library service bundle*: “cloud sourcing” research collections
  - Data-mining Hathi and WorldCat to determine where cost-effective reductions in print inventory can be achieved for *individual libraries* (micro economic context)
  - Characterizing optimal service profile for shared print/digital service providers; *collective market* for service (macro economic context)
  - Exploring *social and economic infrastructure requirements*; technical infrastructure a separate, secondary challenge
Within the next 5-10 years, focus of shared print archiving and service provision will shift to monographic collections

- **large scale service hubs** will provide low-cost print management on a subscription basis;
- **reducing local expenditure** on print operations, **releasing space** for new uses and facilitating a **redirection of library resources**;
- enabling **rationalization of aggregate print collection** and **renovation of library service portfolio**

Mass digitization of retrospective print collections will drive this transition
A global change in the library environment

*Academic print book collection already substantially duplicated in mass digitized book corpus*

**June 2009**
Median duplication: 19%

**June 2010**
Median duplication: 31%

~75% of mass digitized corpus is ‘backed up’ in one or more shared print repositories

~3.5M titles

~2.5M
Shared Print Service Provision: Capacity Varies

Union of 5 major shared print collections

Library of Congress
UC NRLF/SRLF
ReCAP
CRL

% of Mass Digitized Corpus Duplicated

Sep-09 Oct-09 Nov-09 Dec-09 Jan-10 Feb-10 Mar-10 Apr-10 May-10 Jun-10
Optimizing print holdings . . .

- ~ 700,000 CMU holdings in WorldCat (PMC)

  Cf. 1.2M vols.; are WorldCat holdings up to date?

- ~240,000 titles held by CMU (PMC) replicated in mass-digitized book collection

  ~16,000 (6%) in the public domain

- >190,000 mass-digitized titles held by CMU also held by PSU

  Shared print agreement feasible?
35% of titles held in CMU Libraries are duplicated in the HathiTrust Digital Library

~700K Carnegie Mellon University (PMC) holdings in WorldCat

~243K duplicated in HathiTrust Digital Library

Represents ~$1M in annual operating costs

OCLC Research. Analysis based on HathiTrust and WorldCat snapshots. Data current as of December 2010.
System-wide print distribution of CMU-owned titles duplicated in HathiTrust Digital Library

89% of titles represent very low preservation risk; suitable for withdrawal, shared print agreement?

OCLC Research. Analysis based on HathiTrust and WorldCat snapshots. Data current as of December 2010.
Subject distribution of CMU-owned titles duplicated in HathiTrust Digital Library

- Communicable Diseases & Misc.
- Unclassified
- Health Facilities
- Physical Education & Recreation
- Medicine By Body System
- Agriculture
- Medicine
- Anthropology
- Preclinical Sciences
- Medicine By Discipline
- Geography & Earth Sciences
- Biological Sciences
- Law
- Psychology
- Health Professions & Public Health
- Government Documents
- Chemistry
- Education
- Performing Arts
- Computer Science
- Library Science
- Mathematics
- Philosophy & Religion
- Political Science
- Sociology
- Physical Sciences
- Music
- Engineering & Technology
- Business & Economics
- Art & Architecture
- History & Auxiliary Sciences
- Language, Literature, Linguistics

Carnegie Mellon University

Represents 2.8 miles of library shelving <1000 feet if limited to public domain

Public domain... low risk, limited return

OCLC Research. Analysis based on HathiTrust and WorldCat snapshots.

Data current as of December 2010.
## Maximize benefit, minimize risk

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Strategy</th>
<th>Titles</th>
<th>Linear Feet</th>
<th>Offsite $ (p/a)</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>PD</td>
<td>IC</td>
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<tr>
<td><strong>Highest</strong></td>
<td>Relegate based on Hathi</td>
<td>227,729</td>
<td>15,785</td>
<td>14,233</td>
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<td></td>
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<td>15,302</td>
<td>225,687</td>
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<td><strong>High</strong></td>
<td>... Penn State without agreement</td>
<td>9,101</td>
<td>182,142</td>
<td>569</td>
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<tr>
<td><strong>Moderate</strong></td>
<td>... Penn State without agreement &amp; holdings &gt;24</td>
<td>9,073</td>
<td>182,026</td>
<td>567</td>
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<tr>
<td><strong>Lower</strong></td>
<td>... Penn State with service agreement</td>
<td>9,101</td>
<td>182,142</td>
<td>569</td>
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<tr>
<td><strong>Low</strong></td>
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</tbody>
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Academic libraries in the Keystone State:
a common trajectory, different timelines

The next few years are critical

For discussion

• What is the function of local print collection in long-term library strategy?

• Is selective externalization of print management functions to Penn State or another potential provider an option?

• Can faculty be persuaded that shared print strategy is sound?

• How soon does change need to happen?