SCS/GreenGlass: Decision Support for Print Book Collections

Rick Lugg
Executive Director, Sustainable Collection Services
Helping Libraries Manage and Share Print Monographs
Individual & Group Projects

- McGill University
- Universite de Montreal
- University of Saskatchewan
- Michigan State University
- Johns Hopkins University
- Purdue University
- Boston College
- Indiana University
- MIT Libraries
- Eastern Academic Scholars’ Trust (EAST)
- COPPUL SPAN
- Novanet
- Tri-University Group (TUG)
- Academic Libraries of Indiana
- Michigan Shared Print Initiative (MI-SPI)
- White Rose Libraries
Issues facing local print book collections

• Stacks are overcrowded
• Use of print books is low and declining
• Library space is wanted for other purposes
• Print redundancy is significant
• The cost of keeping books on shelves is high
• Alternatives exists, but the data is scattered
• Traditional approaches to deselection are costly and time-consuming
• Where do print book collections fit in the library’s priorities?
Stacks are crowded and empty.
Circulation in Academic Libraries: Declining Since 2004

Circulation in Academic Libraries, 2002-2008

Library space is wanted for other purposes

“The crowding out of readers by reading materials is one of the most common and disturbing ironies in library space planning.”

--Scott Bennett
Yale University
Librarian Emeritus
Lifecycle costs: Monographs

CLIR, June 2010
Courant & Nielsen

Estimated Annual Costs

- $4.26/ volume annually in central stacks
- $0.86/volume in high-density facility

On the Cost of Keeping a Book

Paul H. Courant and Matthew “Buzzy” Nielsen

1. Introduction

Among the critical functions of research and academic libraries is preservation—keeping both the scholarly record and much of the associated cultural record fit for use over time. Until recently, maintaining this record entailed managing primarily printed works, of ink on paper, bound in book form. The advent of electronic texts poses a novel and expensive set of preservation problems for academic libraries that have been addressed by many current and recent studies on the cost of digital preservation.1 The topic of this report is the cost of storing and using print in old-fashioned codex form.1

We have two motivations for doing this work. The first is something of a straw man: as librarians and their funders become increasingly aware of the daunting technical and economic problems associated with digital preservation, there is often a certain wistfulness for
Print redundancy is significant

Cloud-sourcing Research Collections: Managing Print in the Mass-digitized Library Environment

Potential for shared print
And local reductions

Figure 8. System-wide distribution of library holdings for titles in HathiTrust Digital Library (June 2010)
STRATEGIES FOR MANAGING LOCAL PRINT
Reasonable questions

• What should be managed locally?
• What should be managed ‘above the institution?’

• What should be managed independently?
• What should be managed collaboratively?

• What data, tools & techniques do we need to manage collections under any of these scenarios?
Independent action in a collective context

US HOLDINGS

Distribution: US HOLDINGS Overlay: NONE

RECORDED USES
HATHitrust
CHOICE
PROTECTED

3+ | 2 | 1 | 0
37.99% | 276,843 10.47% | 78,403 16.47% | 120,148 35.09% | 255,987
Shared Print

Collection Directions: Some Reflections on the Future of Library Collections and Collecting

Lorcan Dempsey
Vice President, Research, and Chief Strategist

Constance Malpas
Research Scientist

Brian Lavoie
Research Scientist

“Shared print management schemes represent a cost-effective alternative to institution-scale solutions, redistributing the costs of library stewardship across a broader pool of participants.”

Published in: *portals: Libraries and the Academy*
Volume 14, Number 3, July 2014 (pages 393-423)
Shared Print Initiatives (Monographs)

- Michigan Shared Print Initiative (MI-SPI)
- COPPUL (Retention allocations in adjustment phase)
- Novanet (data now in GreenGlass)
- Washington Research Library Consortium (WRLC)
- Virtual Library of Virginia (VIVA)
- Academic Libraries of Indiana
- Central Iowa Collaborative Collection Initiative (CI-CCI)
- Eastern Academic Scholars’ Trust (EAST)
EAST Completes Allocation of Retention Commitments

Thanks to the hard work of the EAST team and our vendor partner, OCLC Sustainable Collection Services (SCS), we have just completed finalizing allocations of some 6.2 Million retention commitments to the 40 EAST Retention Partners. This represents some 36% of the total EAST collective collection of over 16 Million holdings. Over the next month, the Retention Partners will review their allocation proposals and finalize them with SCS which will reload them into the online application, GreenGlass™. In parallel EAST is working to finalize documentation and processing for disclosure of these retention commitments. Stay tuned.
Shared Print: Retention First!

- Establish a safety net: ensure that all titles are secure
- Group-wide agreement on retention models
- Group-wide commitment to retention rules & duration
- Secure scarcely-held titles within the group
- Secure sufficient holdings of each titles to satisfy likely user demand
- Share responsibility for retention proportionately

- Deselection *only* after retention commitments established
OCLC Shared Print

- Support ‘above the institution’ collection management

- Make the shared print workflow less labor-intensive

- Use data to support and supplement the expertise of librarians and faculty
DATA AND LIBRARY COLLECTIONS
Analysis & Action: A Range of Options

- Transfer
  - Offsite storage
  - Compact shelving
  - Automated storage & retrieval systems (ASRS)
- Shared Print Archiving
- Retention and Preservation
- Digitization
- Weeding or Withdrawal
- Benchmarking
Good Data Improves Decisions

- How many holdings/copies?
- Where are they?
- Is the title secure?
- Can the title be accessed quickly?
- Can the title be re-obtained if needed?
- What options are available for each title?
Good Data Improves Decisions

• How many checkouts?
• In what period?
• ILL included?
• In-house use counted?
• Reserve?
• Reference?
Good Data Improves Decisions

• What other editions/versions do we hold?
• Is this title notable or important?
  • Discipline-based core list or accreditation
  • Canonical work
  • Faculty author
  • In a subject for which our library has a noted collection?
  • CHOICE/Outstanding Academic Title
• How rare are my rare books?
Where Is the Data?

Library/Group
- Bibliographic
- Item (location, type status)
- Circulation
- Local rules
- Regional partners
- Comparators

SCS/Vendor
- Filtering
- Remediation
- Aggregation
- Synthesis
- Augmentation

External
- WorldCat
- HathiTrust
- CHOICE/Other Lists
- Internet Archive
- [Commercial availability]
Library’s bib, item and transaction data for PRINT MONOGRAPHS
WorldCat Matching for Each Title

- Total WorldCat Holdings
- Holdings in Country
- Holdings in State/Province
- Holdings/Overlap within Group (for shared print)
- Holdings among Designated Comparators
  - Up to 6 comparator groups
  - Total of 100+ Holdings symbols
  - Resource-sharing partners, peer libraries, nearby print archives
- Hathi Trust Match: public domain / in copyright
WorldCat Matching

• Same Edition: Holding set on same OCLC#
  • Better for widely-held, conservative for deselection

• Any Edition: Holding set on same or related OCLC#
  • defined by OCLC Work Family
  • Links new, revised, US/UK, reprint, large print editions
  • Better for scarcely held, minimizes false uniqueness

• OCLC Work ID#
What Is GreenGlass?

GreenGlass is a web-based application built by SCS.

GreenGlass provides intelligent and efficient support for decisions about adjusting or reducing your print book collection.

GreenGlass gathers deselection metadata (usage, holdings in other libraries, secure digital versions, authoritative title lists) and enables librarians to develop criteria and lists for withdrawal or retention.
From Data to Decision Support

- Assemble usage and overlap data
- Support library-defined rules that operate against that data
- Coordinate retention scenarios across all institutions (in a group setting)
- Facilitate retention, storage or withdrawal decisions in local collections
- Incorporate ‘archival’ values and ‘service’ values into deselection decisions
DECISION SUPPORT: INDIVIDUAL LIBRARIES
GreenGlass Collection Overview

Remediation Lists
In preparing your library’s data for GreenGlass, SCS has compiled several lists that may help to improve the correctness of your records, the completeness of your WorldCat holdings, and/or the efficacy of your collection. View Remediation Lists

Total Record Counts

<table>
<thead>
<tr>
<th></th>
<th>TITLES</th>
<th>ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Records</td>
<td>562,023</td>
<td>599,667</td>
</tr>
<tr>
<td>All Records - Filtered</td>
<td>581,629</td>
<td>587,225</td>
</tr>
</tbody>
</table>

Key Metrics

SCS has been delivering a set of Key Metrics to every client library since the launch of GreenGlass in 2012. For each measure, we offer a green hyperlink to the corresponding list of items, and a calculated percentage of your overall collection. The accumulation of these measures provides an interesting opportunity for you to compare your own key measures with most of the other libraries with which we have worked. These numbers are based on nearly 200 US academic libraries, and 70 million holdings. They include research libraries, state universities, 4-year colleges, and a handful of community colleges.

<table>
<thead>
<tr>
<th>METRIC</th>
<th>FILTERED ITEMS</th>
<th>% OF YOUR FILTERED ITEMS</th>
<th>SCS AVERAGE</th>
<th>COMPARED TO THE RANGES AND AVERAGE FOR ALL SCS CLIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero recorded uses</td>
<td>167,287</td>
<td>28%</td>
<td>43% *</td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Greater than 3 recorded uses</td>
<td>227,433</td>
<td>39%</td>
<td>23% *</td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Publications more than 10 years old</td>
<td>497,842</td>
<td>85%</td>
<td>89% *</td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>More than 100 US holdings - same edition</td>
<td>478,275</td>
<td>81%</td>
<td>76% *</td>
<td><img src="image" alt="Graph" /></td>
</tr>
<tr>
<td>Fewer than five US holdings - any edition</td>
<td>1,223</td>
<td>0%</td>
<td>1% *</td>
<td><img src="image" alt="Graph" /></td>
</tr>
</tbody>
</table>
Vis: Subjects Overlaid with Uses
### GreenGlass Item Details

**Title:** New essays on contract theory / edited by Kai Nielsen and Roger A. Shiner

**Publication Information:** v.3/Guelph, Ont : Canadian Association for Publishing in Philosophy, 1977.

#### LOCAL TRANSACTION DATA
- **Recorded Uses:** 0

#### FORMATS
- **Bib Record Type:** Book
- **Primary Language:** eng
- **Possible Duplicate:** No

#### GROUP DATA
- **EAST Holdings:** 10
- **Aggregate Uses:** 52
- **Ephemera:** No

#### WORLDCAT HOLDINGS
- **US Holdings:** 133 / 133
- **New Hampshire Holdings:** 3 / 3
- **Comparator Libraries:** 26 / 26

#### OTHER
- **HathiTrust IC/PD:** No / No

#### EAST HOLDINGS
- Amherst College
- Connecticut College
- Skidmore
- Smith College
- St Anselm
- Swarthmore College
- Tufts University
- UMass Amherst
- UNH
- Williams College

#### COMPARATOR LIBRARY HOLDINGS
- **Maine Shared Collections:** 0 / 0
- **Regional Large Academic Libraries:** 15 / 15
- **Regional College Libraries:** 1 / 1
- **Boston Library Consortium (BLC):** 3 / 3
- **CNY Retention Partners:** 2 / 2
Query: Low-Use, Widely Held
# Exported Lists

<table>
<thead>
<tr>
<th>Location Code</th>
<th>Display Call Number</th>
<th>Display Call Number Normalized</th>
<th>Title</th>
<th>Enumeration</th>
<th>Copy Number</th>
<th>Author</th>
<th>Publisher</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>0</td>
<td></td>
<td>0</td>
<td>1</td>
<td>1977-09-30</td>
<td>1993-03-26</td>
<td>369</td>
<td>272</td>
<td>276</td>
<td>27</td>
<td>28</td>
<td>22</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>1978</td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1977-09-30</td>
<td>1993-03-26</td>
<td>369</td>
<td>272</td>
<td>276</td>
<td>27</td>
<td>28</td>
<td>22</td>
<td>22</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UGC - Any Edition</th>
<th>Link+ - Same Edition</th>
<th>Link+ - Any Edition</th>
<th>Protected</th>
<th>HathiTrust Public Domain</th>
<th>HathiTrust In Copyright</th>
<th>HathiTrust URL</th>
<th>Reviewed in CHOICE</th>
<th>OAI (OA)</th>
<th>OPAC URL</th>
<th>WorldCat URL</th>
<th>WorldCat OCLC Number</th>
<th>Bib Record Number</th>
<th>Bib Control Number</th>
<th>Item Control Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td><a href="http://catalog.hathitrust.org/Record/000210578">http://catalog.hathitrust.org/Record/000210578</a></td>
<td>No</td>
<td>No</td>
<td>Catalog Record</td>
<td>WorldCat Record</td>
<td>2818469</td>
<td>.b11792563</td>
<td>.i12483394</td>
</tr>
</tbody>
</table>

| 8                 | 3                    | 3                  | No          | No                       | Yes                   | http://catalog.hathitrust.org/Record/000210578 | No       | No       | Catalog Record | WorldCat Record     | 2818469           | .b11792565         | .i12483382          |

| 11                | 3                    | 3                  | No          | No                       | Yes                   | http://catalog.hathitrust.org/Record/000235581 | No       | No       | Catalog Record | WorldCat Record     | 4493076           | .b11792577         | .i12483400          |

| 1                 | 2                    | 2                  | No          | No                       | Yes                   | http://catalog.hathitrust.org/Record/001341123 | No       | No       | Catalog Record | WorldCat Record     | 266199            | .b11792863         | .i12483710          |
DECISION SUPPORT: GROUPS / SHARED PRINT
In preparing your library's data for GreenGlass, SCS has compiled several lists that may help to improve the correctness of your records, the completeness of your WorldCat holdings, and/or the efficacy of your collection.

**View Remediation Lists**

### Total Record Counts

<table>
<thead>
<tr>
<th></th>
<th>TITLES</th>
<th>ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Records</td>
<td>917,688</td>
<td>1,078,987</td>
</tr>
<tr>
<td>All Records - Filtered</td>
<td>917,598</td>
<td>1,078,865</td>
</tr>
</tbody>
</table>

### Key Metrics

<table>
<thead>
<tr>
<th></th>
<th>FILTERED ITEMS</th>
<th>PERCENT OF FILTERED ITEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Records - Filtered</td>
<td>1,078,865</td>
<td>100.00 %</td>
</tr>
<tr>
<td>Zero recorded uses</td>
<td>340,598</td>
<td>31.57 %</td>
</tr>
<tr>
<td>Publications more than 10 years old</td>
<td>864,082</td>
<td>80.09 %</td>
</tr>
<tr>
<td>More than 100 US holdings</td>
<td>745,893</td>
<td>69.14 %</td>
</tr>
<tr>
<td>Fewer than five US holdings</td>
<td>45,947</td>
<td>4.26 %</td>
</tr>
<tr>
<td>Unique in District of Columbia</td>
<td>117,692</td>
<td>10.91 %</td>
</tr>
<tr>
<td>In HathiTrust</td>
<td>530,525</td>
<td>49.17 %</td>
</tr>
</tbody>
</table>

**Toggle between Library and Group views**
Visualize collections by location and size
GROUP OVERLAP

Participant holdings

When creating group models for retention the overlap attribute can be a helpful tool in identifying potential redundant within the collection as a whole. When reviewed with total recorded uses, year published and start to see usage patterns in your collection that may be underutilized, no longer utilized, or are of a minor

PARTICIPANT HOLDINGS OVERLAP

<table>
<thead>
<tr>
<th>Group members holding the title</th>
<th>Title Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1,750,000</td>
</tr>
<tr>
<td>2</td>
<td>1,500,000</td>
</tr>
<tr>
<td>3</td>
<td>1,250,000</td>
</tr>
<tr>
<td>4</td>
<td>1,000,000</td>
</tr>
<tr>
<td>5</td>
<td>750,000</td>
</tr>
<tr>
<td>6</td>
<td>500,000</td>
</tr>
<tr>
<td>7</td>
<td>250,000</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

Libraries

- The George Washington University
- American University
- Catholic University of America
- Gallaudet University
- Georgetown University
- Howard University
- Marymount University
- The University of the District of Columbia

Select full group or subgroups

Confirm  Cancel
Toggle between title counts & percentages
Title-Set Attribute: Aggregate Uses

Aggregate Uses is the metric used to assess usage at the group level. Aggregate uses combines all the recorded uses for a given title, from all the libraries that hold it. In this chart, the bar on the far left represents the number of titles with no recorded uses, anywhere in the group. The next bar to the right represents titles with a single use and so on. The bar on the far right, represents titles with a significant number of aggregate uses.

- Zero Uses: 25% (1,097,248 holdings)
- 1-9 Uses: 34% (1,499,671 holdings)
- 10-19 Uses: 15% (641,753 holdings)
- 20+ Uses: 26% (1,144,152 holdings)
Model Builder: Data Elements Available

The George Washington University
Retained Percentage: 0%
Retained Titles: 0

Included Libraries
Retained Percentage: 0%
Retained Titles: 0

Criteria

LIBRARIES

Includes 8 of 8 Libraries

RETAI N

Choose:

- Group overlap
- WorldCat holdings
  - USMAI holdings
  - JHU holdings
  - ASERL holdings
  - UMD holdings
  - PALCI holdings
  - US holdings
  - District of Columbia holdings
- Group title-set attributes
  - Aggregate uses
  - Last change year
  - Publication year
  - HathiTrust
Still in development – Actual product screens TBD
## Estimated Retention Results

<table>
<thead>
<tr>
<th>LIBRARY</th>
<th>TOTAL TITLES</th>
<th>RETAINED TITLES</th>
<th>RETAINED PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included Libraries</td>
<td>5,184,492</td>
<td>2,749,276</td>
<td>53%</td>
</tr>
<tr>
<td>AMB5</td>
<td>84,026</td>
<td>59,849</td>
<td>71%</td>
</tr>
<tr>
<td>Ancilla</td>
<td>16,869</td>
<td>9,893</td>
<td>59%</td>
</tr>
<tr>
<td>Anderson</td>
<td>161,159</td>
<td>97,748</td>
<td>61%</td>
</tr>
<tr>
<td>Butler</td>
<td>185,161</td>
<td>88,335</td>
<td>48%</td>
</tr>
<tr>
<td>CTS</td>
<td>136,260</td>
<td>98,743</td>
<td>72%</td>
</tr>
<tr>
<td>Concordia</td>
<td>124,714</td>
<td>88,237</td>
<td>71%</td>
</tr>
<tr>
<td>DePauw</td>
<td>282,794</td>
<td>134,937</td>
<td>48%</td>
</tr>
<tr>
<td>Earlham</td>
<td>198,586</td>
<td>89,683</td>
<td>45%</td>
</tr>
<tr>
<td>Franklin</td>
<td>85,259</td>
<td>42,608</td>
<td>50%</td>
</tr>
<tr>
<td>Goshen</td>
<td>99,272</td>
<td>47,498</td>
<td>48%</td>
</tr>
<tr>
<td>Grace</td>
<td>107,347</td>
<td>79,533</td>
<td>72%</td>
</tr>
<tr>
<td>Hanover</td>
<td>160,191</td>
<td>71,535</td>
<td>45%</td>
</tr>
<tr>
<td>Huntington</td>
<td>86,352</td>
<td>51,846</td>
<td>60%</td>
</tr>
<tr>
<td>Indiana State</td>
<td>527,850</td>
<td>272,265</td>
<td>52%</td>
</tr>
</tbody>
</table>
SHARED PRINT RETENTION MODELS: RESULTS
Eastern Academic Scholars’ Trust (47)

- Retain ALL if
  - EAST holdings fewer than 5
  - US holdings fewer than 40 (any edition)
  - Regional Large Academic Libraries holdings fewer than 5 (any edition)
  - CNY Retention Partners holdings fewer than 1 (any edition)
  - Publication year before 2011
  - Not Ephemera

- Retain 5 if
  - Aggregate uses more than 30
  - Publication year before 2011
  - Not Ephemera

- Retain 1 if
  - Publication year before 2011
  - Not Ephemera

Result: Average of 36% retention commitment
SCS: Vendor Support for Monographs Analysis

- Consulting
- Project Management
- Tools to interact & visualize
- Value added to data
- Data
Benefits

- Evidence-based approach
- Adds a quantitative dimension to collections decisions
- Ongoing, iterative, dynamic
- Helps organize preservation of the scholarly & cultural record
- Move scarcely-held items to special collections
- Data remediation
- Better use of space and other resources
Sustainable Collection Services™ and GreenGlass™ Tutorials

Individual Library Features in GreenGlass
- What is GreenGlass?
- Collection Overview
- Collection Visualization
- Item Lists and Item Details
- GreenGlass Analysis
- What is GreenGlass group functionality?
- Group-Level Retention Models
- Title Sets, Title Holdings, and Items
- Establishing Your List of Comparator Libraries
- Possible Duplicates
- SAME and ANY Edition Holdings Tallies
- Multi-Edition Titles
- HathiTrust Matches and URLs
- How to Update WorldCat Holdings

Group Features in GreenGlass
- What is GreenGlass group functionality?
- Group Retention Models
- Title Sets, Title Holdings, and Items

Brief Topical Tutorials
- Establishing Your List of Comparator Libraries
- Possible Duplicates
- SAME and ANY Edition Holdings Tallies
- Multi-Edition Titles
- HathiTrust Matches and URLs
- How to Update WorldCat Holdings
QUESTIONS/DISCUSSION