Usage of E-books
With Enriched Bibliographic Records

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Background

• Given: If you want people to use your e-books, you need to make them findable.
Why?

New frontiers in ethnography
Edited by Sam Hilyard
Published Info: Bingley: Emerald, 2010
Series: Studies in qualitative methodology; v. 11

Used 6 times, 77 pages viewed

Initiating ethnographic research: a mixed methods approach
Stephen L. Schensul, Jean J. Schensul, and Margaret D. LeCompte
Published Info: Lanham, Md: AltaMira Press, ©2013
Series: Ethnographer's toolkit; 2

Used 0 times, 0 pages viewed
Problem Statement

If the catalog record includes a table of contents note and/or a summary note,

-- is the e-book more likely to be used?
-- will it be used a greater number of times?
Literature Review

• Catalog Use Studies

• Four experimental studies

• Five retrospective cohort studies
Experimental Study

• 172 titles at John Carroll University
• After enhancement, 80 titles circulated at least once (25% increase)
• Total number of circulations increased by 34%

Retrospective Cohort Study

- 88,538 titles at College of New Jersey Library
- Only TOCs associated with difference, not summaries or URL links
- **31-56% higher circulation** for titles from 1990-2004 with enhanced records
- **-4% difference** in circulation for titles from 2005-2008

# Retrospective Cohort Study

<table>
<thead>
<tr>
<th>Publication dates</th>
<th>% Enhanced Records</th>
<th>% Greater Circulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-1994</td>
<td>14%</td>
<td>45%</td>
</tr>
<tr>
<td>1995-1999</td>
<td>19%</td>
<td>56%</td>
</tr>
<tr>
<td>2000-2004</td>
<td>46%</td>
<td>31%</td>
</tr>
<tr>
<td>2005-2008</td>
<td>81%</td>
<td>-4%</td>
</tr>
</tbody>
</table>

Gaps we hope to fill

• What is it about some items that makes them more likely to be used than others?

• Does this also apply to e-books?
What We Expected to Find

• Usage affected by catalog enhancements.
• Usage also affected by publication year.
• But, usage still affected by catalog enhancements, controlling for publication year.
Questions?

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Methods
Design: Retrospective Cohort
In Public Health
Design: Retrospective Cohort
In Library Science

- Ebooks
  - With Catalog Enhancements
    - Used
    - Not Used
  - Without Catalog Enhancements
    - Used
    - Not Used
Period of Time

January 2012 December
2 Platforms & 3 Collections

EBSCO eBooks

NetLibrary

ebrary
Dependent Variables

• What we were most interested in
• Outcomes
What mean you, “Usage”?

- Count of Uses (Usage)
  - COUNTER BR1: # Sessions
  - COUNTER BR2: # Downloads
- Number of titles used at least once (Title Used)
Independent Variables

Catalog Enhancements

- Table of Contents (MARC 505)

505 0 Foreword -- 1 Philosophical problems -- 2 Information data structures -- 3 Empirical Clustering and classic hierarchies -- 4 Algebra of trees -- 5 Generalized Classifications -- 6 Topology of generalized classifications -- 7 Meta-classification -- 8 For an axiomatic theory of classifications -- 9 Alternative theories and higher infinite -- 10 Postscript -- Bibliography.

- Summary (MARC 520)

520 This book is an essay on the epistemology of classifications. Its main purpose is not to provide an exposition of an actual mathematical theory of classifications, that is, a general theory which would be available to any kind of them: hierarchical or non-hierarchical, regular or fuzzy, overlapping or non-overlapping, finite or infinite, and so on, establishing a basis for all possible divisions of the real world. For the moment, such a theory remains nothing but a dream. Instead, the author essentially put forward a number of key questions. Their aim is rather to reveal the "state of art" of this dynamic field and the philosophy one may eventually adopt to go further. To this end they present some advances made in the course of the last century, discuss a few tricky problems that remain to be solved, and show the avenues open to those who no longer wish to stay on the wrong track. Researchers and professionals interested in the epistemology and philosophy of science, library science, logic and set theory, order theory or cluster analysis will find this book a comprehensive, original and progressive introduction to the main questions in this field.

Publication Year

1975
Overlapping Catalog Enhancements Categories
Pulling the Data Together

MARC

+ Usage

Data
Comparisons

By Catalog Enhancement
- Has Neither
- Has TOC Only
- Has TOC or Both
- Has Summary Only
- Has Summary or Both
- Has Either
- Has Both

By Publication Year Group
- Quartiles
- Before 1998
- Between 1998 & 2001
- Between 2002 & 2007
- In or After 2008
Questions about Methods?

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# Results: Mean Uses by CE

- **Mean Usage differs by catalog enhancement**

<table>
<thead>
<tr>
<th></th>
<th>Mean Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td>3.6</td>
</tr>
<tr>
<td><strong>Has TOC Only (26%)</strong></td>
<td>6.6</td>
</tr>
<tr>
<td><strong>No TOC or Has Both</strong></td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Has Summary Only (2%)</strong></td>
<td>6.1</td>
</tr>
<tr>
<td><strong>No Summary or Has Both</strong></td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Has Either or Both (34%)</strong></td>
<td>8.6</td>
</tr>
<tr>
<td><strong>Has Neither</strong></td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Has Both (6%)</strong></td>
<td>18.7</td>
</tr>
<tr>
<td><strong>Has Either or Neither</strong></td>
<td>2.6</td>
</tr>
</tbody>
</table>
Results: Total Uses by CE

• Overall usage differs by catalog enhancement
Odds Ratio

Secretariat’s Odds: 4 to 1  
Beetle Bomb’s Odds: 20 to 1

Odds Ratio: 4:1 divided by 20:1  
OR= .25/.05 = 5

Secretariat’s odds of winning are 5 times that of Beetle Bomb’s.
Odds Ratio: Meaning

OR = 1
- Groups Similar

OR < 1
- Odds are against the CE

OR > 1
- Odds are with the CE
# Results: Titles Used

<table>
<thead>
<tr>
<th></th>
<th>Used</th>
<th>Not Used</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has Summary</td>
<td>21%</td>
<td>79%</td>
<td>8%</td>
</tr>
<tr>
<td>No Summary</td>
<td>11%</td>
<td>89%</td>
<td>92%</td>
</tr>
<tr>
<td>Totals</td>
<td>12%</td>
<td>88%</td>
<td>N=76,467</td>
</tr>
</tbody>
</table>

**OR**: **2.027**, 95% CI: **1.94-2.12**

<table>
<thead>
<tr>
<th></th>
<th>Used</th>
<th>Not Used</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has TOC</td>
<td>18%</td>
<td>82%</td>
<td>31%</td>
</tr>
<tr>
<td>No TOC</td>
<td>10%</td>
<td>90%</td>
<td>69%</td>
</tr>
<tr>
<td>Totals</td>
<td>12%</td>
<td>88%</td>
<td>76,467</td>
</tr>
</tbody>
</table>

**OR**: **2.076**, 95% CI: **1.944-2.216**
Results: Publication Year

- Usage also affected by publication year

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Uses</td>
<td>0.31</td>
<td>0.6</td>
<td>2.35</td>
<td>10.89</td>
</tr>
<tr>
<td># Titles Used</td>
<td>1,378</td>
<td>2,068</td>
<td>2,288</td>
<td>3,551</td>
</tr>
<tr>
<td>% of Titles Used in Group</td>
<td>7.60%</td>
<td>10.90%</td>
<td>13.20%</td>
<td>18.10%</td>
</tr>
<tr>
<td>% of All Titles Used</td>
<td>14.80%</td>
<td>22.30%</td>
<td>24.60%</td>
<td>38.20%</td>
</tr>
</tbody>
</table>
Results: Uses by Pub Year Group

% Titles

% Uses


0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Results: Titles by Publication Year and Catalog Enhancement

- Distribution of titles in each CE varies by publication year
Results: Titles used stratified for publication year

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Has Summary Only</td>
<td>1.2</td>
<td>1.5</td>
<td>0.8</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Has TOC Only</td>
<td>1.6</td>
<td>1.6</td>
<td>1.5</td>
<td>1.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Has either or both</td>
<td>2.0</td>
<td>1.7</td>
<td>1.35</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Has both</td>
<td>2.5</td>
<td>1.9</td>
<td>1.7</td>
<td>1.1</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Odds Ratios. Unshaded values are significant at 95% CI.
Summary

• Publication year directly associated with usage
  – More recent titles used more.

• Catalog enhancements associated with usage
  – Either is better than neither.
  – Both is better than neither or either.

• Still true controlling for publication year
  – Older and newer titles with CE used more
Limitations

• Only 2 e-book platforms
• Only 1 year for measuring usage
• Confluence of COUNTER (BR1) titles used with BR2 (sections used) measures
Topics for Further Research

• More extensive statistical analysis
• Experimental study
• Materials in remote storage
• Effects of cover thumbnails on usage
Bibliography

https://tinyurl.com/mkuseh9
Questions?

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