

# Using an Availability Study to Assess Access to Electronic Articles

Presented at the 2010 Library Assessment Conference  
by  
Janet Crum  
Director of Library Services,  
City of Hope

With special thanks to Carla Pealer, Oregon Health &  
Science University Library, Portland

# The setting: Oregon Health & Science University Library, Portland, OR

- Freestanding academic health sciences center: medicine, dentistry, nursing, allied health, basic sciences, biomedical engineering
- Library serves faculty, staff, students, patients, unaffiliated health practitioners, and walk-in users

# What I'll talk about today

- Availability study – what and why
- Methodology
- Summary of findings
- Conclusions and take-aways

# Products/tools used

- Catalog: Millennium from Innovative Interfaces
  - Integrated with Innovative's Electronic Resources Management (ERM) module
- Link Resolver: WebBridge from Innovative Interfaces
- Remote access: EZProxy
- Most electronic holdings maintained by library rather than purchased

# The problem – incomplete information

- Available data provided incomplete picture
  - Usage data measures quantity, not quality, of access
  - User support requests -> anecdotal data
  - Usability tests contrived, don't use actual user requests
  - LibQUAL+ data -> know there's a problem but need more information to fix it
- How often are users able to get full text of desired articles?
- What gets in their way? And how often?

# The solution – an availability study

- Oversimplified summary of method
  - Gather actual user requests (or simulate them)
  - Try to fill them the way a user would
  - Record and analyze results
- Measures how well library satisfies user requests
- Identifies and quantifies barriers to satisfying requests
- First described by Kantor in 1976

# Very short review of literature on availability studies

- Lots of studies of print materials summarized in review articles by Mansbridge (1986) and Nisonger (2007).
- Nisonger (2007 and 2009) provides excellent introduction to availability studies
- Very few published availability studies involve electronic articles
- None include link resolver

# Summary of our methodology

- Get sample of user requests from link resolver log
- Try to retrieve article via link resolver and catalog
- Record results + information about article
- Analyze results

# The data

- Link resolver logs each user request
  - Date/time
  - OpenURL
  - Which link(s) the user clicks
- Requested log files from vendor
  - Parts of selected days during two 3-week periods (fall 2009 and spring 2010)
- Removed extraneous entries
  - Web page elements (e.g. images)

# Sampling

- Tested random sample of 414 entries
  - Every 3<sup>rd</sup> entry
  - Skipped obvious duplicates
  - Skipped entries for items other than articles

# Testing – link resolver

- Paste openURL in browser
- Attempt to retrieve full text using menu provided by resolver
- Test links in order they appear
- Stop when successful or when run out of links to test



**Title:** *Road safety in drivers with Parkinson disease.*  
**Author:** Uc  
**Source:** *Neurology* (ISSN 0028-3878) 2009 73 ( 24): 2112-

## Link to article - OHSU only

Full-text available through LWW  
**LIB HAS 01-01-1999 -**

Full-text available through Total Access (Ovid)  
**LIB HAS 01-01-1995 -**

## Browse journal - OHSU only

Journal available through MDConsult  
**LIB HAS 01-01-1996 -**

# Testing - catalog

<b>Title</b>	New England journal of medicine
<b>Imprint</b>	Boston, Massachusetts Medical Society.
<b>Continues</b>	<a href="#">Boston medical and surgical journal</a>

Copy Status   Find Similar Items   Full Record

**Electronic Access:**

<a href="#">Full text available to Oregon Health &amp; Science University from Massachusetts Medical Society</a>	Jan. 01, 1993-	 Terms of Use
<a href="#">*FREE* Full Text available from Free Medical Journals *FREE*</a>	Jan. 01, 1993- Feb. 18, 2010	 Terms of Use
<a href="#">*FREE* Full Text available from Free Access Journals (Highwire) *FREE*</a>	Jan. 01, 1993- Feb. 18, 2010	 Terms of Use

- Search for journal
- Review holdings information
- If catalog indicates electronic availability, attempt to retrieve full text using catalog link(s)

# Recording results in Excel

- Link resolver availability
  - Whether or not article could be retrieved electronically via article- or journal-level links
  - Nature of any problems encountered
- Catalog availability
  - Whether or not article could be retrieved electronically
  - If not, is it available in print?
  - Nature of any problems encountered

# Other data recorded

- Link resolver info
  - Origin of request (e.g. PubMed, Scopus)
  - Whether or not user clicked any links
- Article info
  - Journal title
  - Year of publication
- Testing info
  - Date tested
  - Initials of tester

# Analyzing results

- Availability
  - Via catalog and resolver
  - By publication date
  - By origin
- Problems
  - Nature
  - Frequency
  - Used Pareto charts

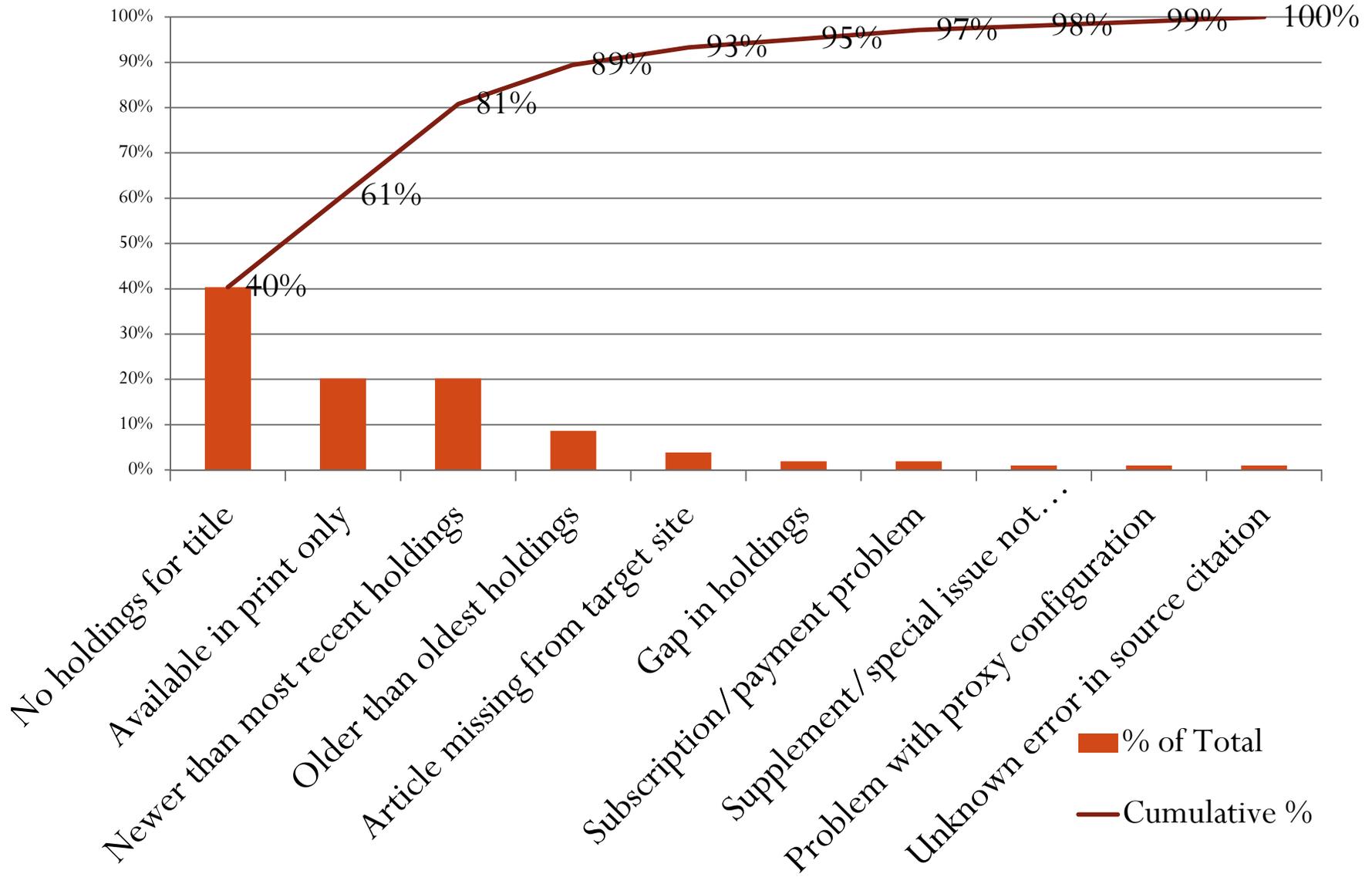
# Results: Availability

	Availability via catalog		
Availability via link resolver	Available electronically	Available in print only	Not available
Available with no problems	261	0	0
Available with problems	19	0	0
Not available	27	21	83
Availability unclear due to incomplete data	3	0	0
<b>Total</b>	<b>310</b>	<b>21</b>	<b>83</b>

## Results: Barriers to accessing articles via the catalog

<b>Reasons Articles Were Unavailable</b>		
<b>Problem</b>	<b>Count</b>	<b>% of Total Problems</b>
No holdings for title	42	40.38%
Available in print only	21	20.19%
Newer than most recent holdings	21	20.19%
Older than oldest holdings	9	8.65%
Article missing from target site	4	3.85%
Gap in holdings	2	1.92%
Subscription/payment problem	2	1.92%
Supplement/special issue not available	1	0.96%
Problem with proxy configuration	1	0.96%
Unknown error in source citation	1	0.96%
Totals	104	100.00%

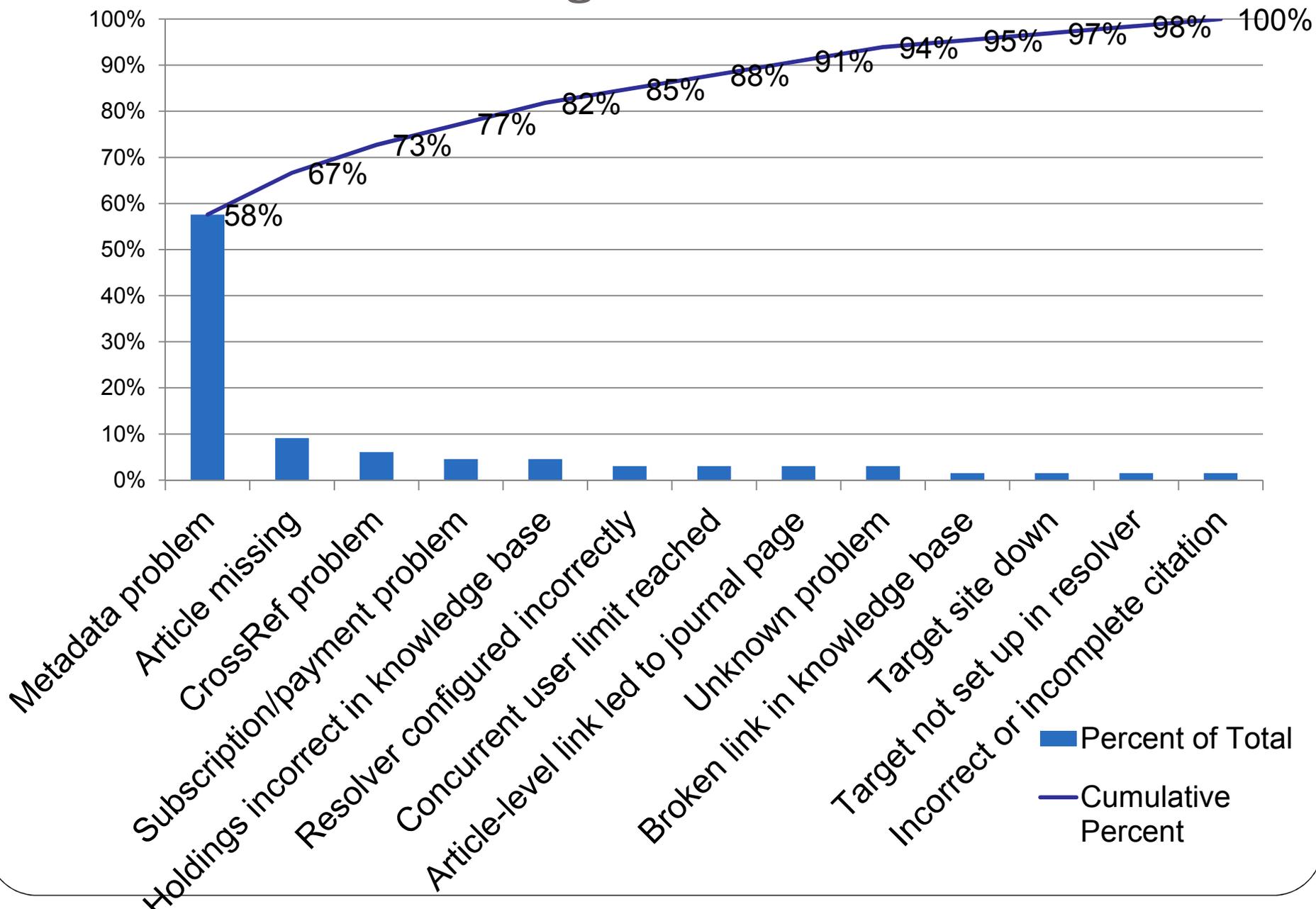
# Barriers to Accessing Articles via the Catalog



## Results: Barriers to accessing articles via link resolver

<b>Problem</b>	<b>Count</b>	<b>Percent of Total Problems</b>
Incomplete or inaccurate metadata	38	57.58%
Article missing from provider site	6	9.09%
CrossRef down or unable to process request	4	6.06%
Subscription/payment problem	3	4.55%
Holdings incorrect in knowledge base	3	4.55%
Resolver configured incorrectly	2	3.03%
Concurrent user limit reached	2	3.03%
Article-level link led to journal page	2	3.03%
Unknown problem	2	3.03%
Broken link in knowledge base	1	1.52%
Target site down	1	1.52%
Target not set up in resolver	1	1.52%
Incorrect or incomplete citation	1	1.52%
<b>Totals</b>	<b>66</b>	<b>100%</b>

# Barriers to accessing articles via link resolver



# Conclusions and take-aways

- Availability studies provide
  - Useful data to support decisions re: allocating resources
  - A powerful way to assess the quality of collections and access to them
- Link resolver logs are a gold mine of information about what users are trying to access
- Don't know if you can get resolver log data? Ask!

Questions? Please get in touch.

**Thank you!**

Janet Crum

Director, Library Services

City of Hope

[jcrum@coh.org](mailto:jcrum@coh.org)

626-256-4673 x68614