SERIALS BY THE NUMBER

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13TH NORTH CAROLINA SERIALS CONFERENCES
OPENING PANDORA’S BOX:
MANAGING THE CHAOS OF SERIALS RESOURCES

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FIVE IMPORTANT QUESTIONS

• What do print and electronic journals actually cost?

• What use are library use metrics?

• Why did library subscription prices increase so much?

• Are “big deals” good deals?

• Will Open Access by author payment pay?
WHAT DO PRINT & ELECTRONIC COLLECTIONS ACTUALLY COST?
Five Collection Access Services

– Electronic Collection

– Current Periodicals

– Bound Backfile Collection

– Interlibrary Loans (ILL)

– Interlibrary Borrowing (ILB)
Costs Include All Resources Used.

– Collection Purchases

– Staff

– Facilities

– Equipment & Systems

– Photocopies, Binding, etc.
Four Groups of Activities

- Collection-related
- Backfile-related
- User-related
- Use-related
Cost Per Title

• Electronic collection - $190 per title

• Print collection - $325 per title
  – Current collection - $105 per title
  – Backfile collection - $220 per title
WHAT USE ARE USE METRICS?
A Sound Basis for Decisions

- Cost of Use-related Activities
- Provide a Basis for Decision-Making
- Compare the Unit Cost of Services
  - Electronic - $2.50 per reading
  - Current Periodicals - $13.70 per reading
  - Bound Backfiles - $15.70 per reading
  - ILL - $8.40 per item
  - ILB - $11.00 per item
To Understand User Behavior/Patterns

- Where Library Use Fits In
- Trends in Reading
INFORMATION SEEKING & READING PATTERNS

• How much do they read?
• Where readers obtain articles that are read?
• What format do readers use?
• How do readers learn about articles?
HOW MUCH DO THEY READ?

• Depends on the reader’s field
• University faculty read more than others
WHERE DO READERS OBTAIN ARTICLES?

- Personal subscriptions
- Library collections
- From another person
- Author Websites
- Preprint and other databases
- Age of articles is important
TRENDS IN SCIENTISTS’ READING PATTERNS

• They appear to be reading more
• They rely on libraries more
• Reasons for increased library use
Fig 2 - Average Articles Read per Scientist

Year and Study

1977 (National survey, n=2,350) - 150
1984 (National survey, n=865) - 172
1993 (Univ. of TN, n=89) - 188
2000-03 (TN, Drexel and Pittsburgh, n=300) - 216

Average number of articles read per scientist
Fig 3 - Source of Readings

Year of Survey


Scientist Reading per Year

Library Collections
Other Sources

37 52 92 96 113 120 115
Average Number of Personal Subscriptions per Scientist

- 1977: 4.21
- 1984: 3.96
- 1993: 3.86
- 2000-03: 3.5
Fig 4 - Average Number of Articles Identified by Automated Searches Per Scientist

Average Readings Per Scientist

- 1977: 1
- 1984: 2
- 1993: 27
- 2000-2003: 51
Fig 5 - Format of Reading (%) by University Faculty by Scientists and Non-scientists: 2000-2003

Source: University of Tennessee (n=96), Drexel University (n=92), University of Pittsburgh (n=209)
ELECTRONIC COLLECTION CONTRIBUTION

- Personal subscriptions - 90% print
- Library collections - 80% electronic
  - 80% electronic
  - Broadens journal availability
  - Saves readers about 20 hours per year
- Breadth of reading has increased
  - Read from about 13 journals in 1977
  - Over twice that amount now
- Age of article is a factor
Table 1 - Age of Articles Read by University Faculty by Format: 2000-2003

<table>
<thead>
<tr>
<th>Age of Article</th>
<th>All Faculty (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1\textsuperscript{st} Year</td>
<td>64.7</td>
</tr>
<tr>
<td>2-5 Years</td>
<td>22.0</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>6.2</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>3.2</td>
</tr>
<tr>
<td>Over 15 Years</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Source: University of Tennessee (n = 96), Drexel University (n = 92), University of Pittsburgh (n = 209)
Table 2 - Proportion of Readings (%) by University Faculty and Staff by Source Used and by Age of Article Read: 2000-2003

<table>
<thead>
<tr>
<th>Source of Article</th>
<th>1st Year</th>
<th>2-5 Years</th>
<th>Over 5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td>33.5</td>
<td>53.2</td>
<td>73.3</td>
</tr>
<tr>
<td>Personal</td>
<td>56.3</td>
<td>28.8</td>
<td>9.2</td>
</tr>
<tr>
<td>Separate</td>
<td>10.3</td>
<td>18.1</td>
<td>17.5</td>
</tr>
<tr>
<td>Total</td>
<td>100.1</td>
<td>100.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Sample Size: Total = 397, Scientists = 300, Non-Scientists = 97
HOW DO READERS LEARN ABOUT ARTICLES?

• Browse
  – Personal subscriptions
  – Library
  – Databases
• Online Search
• Citations in publications
• Someone told reader
• Readers’ time is important
LIBRARY CONTRIBUTION TO USEFULNESS & VALUE

- Purpose of use
- Importance in achieving principal purposes
- Ways article affected the principal purpose
- How much do readers “pay” for the article?
- Achievers read more from library collections
- Readers are more productive than non-readers
- Helps achieve parent organization goals
WHY DID LIBRARY PRICES INCREASE SO MUCH?

- Inflation
- Increase in Size of Journals
- Decrease in Personal Subscriptions
- Decline of Author Fees
- Size of Publisher Portfolios
- Market Power
ARE “BIG DEALS” GOOD DEALS?
Subsidies in Publishing

- Some Articles in Journals Subsidize Others
- Some Journals Subsidize Others
- Mega Journals - “Small Deals”
- “Big Deals”
Price Demand

• Library Decisions to Purchase or Borrow

• Larger Journals Still Likely to Be Purchased

• Expands Use

• Helps Planning
WILL OA BY AUTHOR PAYMENT PAY?
Barriers Affect Some More Than Others
Advantages of Author Payment

- Finesses High Prices
- Perhaps Focus on Large and/or Low Circulation Journals
- Some Subscription Journals Advantageous
- Small Cost Compared with System Costs
- Small Cost Compared with Research & Documentation
- Cost to Universities Comparable to Purchase and Operational Cost
Disadvantages of Author Payment

• Support from Research Funders Limited

• Universities Would Subsidize Reading Done Elsewhere

• Author Payment Has Failed Previously

• Difficulty for Subscription & Author Payment to Co-Exist
Large Investment Is Required For:

- Start-up Costs
- Operational Cost
- Capital Investment
- R&D to Keep Up With Advanced Features
Investment Sources

- Publication Organizations
- Loans
- Foundations
- Stocks & Bonds
Implication of Investment

• Organization Subsidation Denies Other Uses of Funds

• Interest on Loans Is “Profit” to Lending Institution

• Gross Profit Used to Payback Loans, Capital, R&D, Dispersement to Investors

• 50% of Net Profit Goes to Taxes

• 18% of Investor Capital Gains is Taxed
References

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