

Measuring Value and Journal Article Reading Patterns: Changes Over Time

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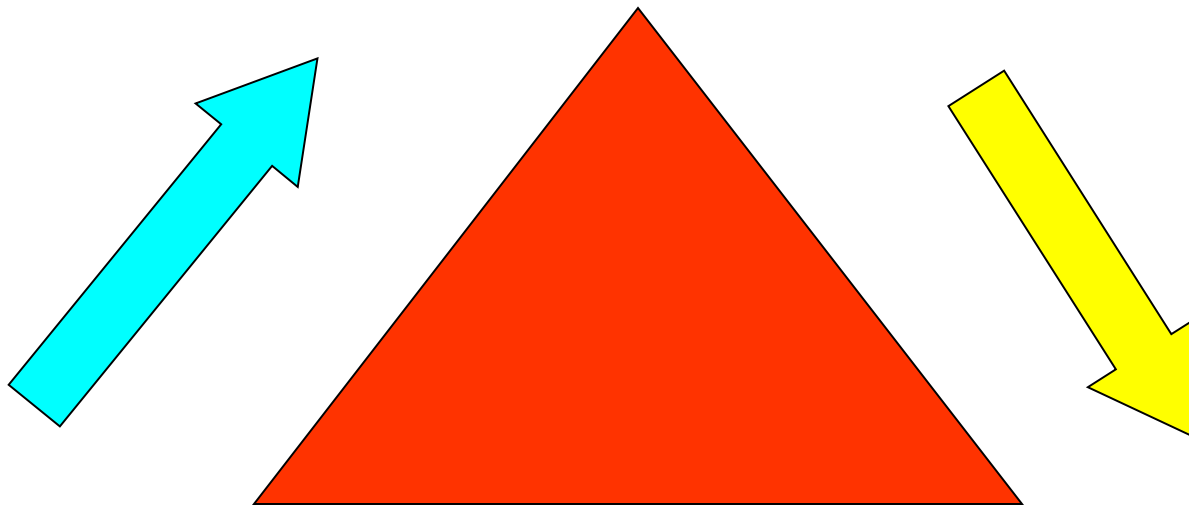


Why should libraries study use and reading?

- To help make collection decisions
- To measure growth and changes
- To improve products and services
- To help determine the value of our collections and services to our users
- To measure return on investment of the library

Methods to learn about users and usage work together...

Focus groups and opinion surveys:
to examine changes; to improve



Usage logs: what people do on library, e-systems, collection decisions & growth

Use surveys & data: value & outcomes

Today I will focus on 4 things that show implicit and explicit value and changes over time...

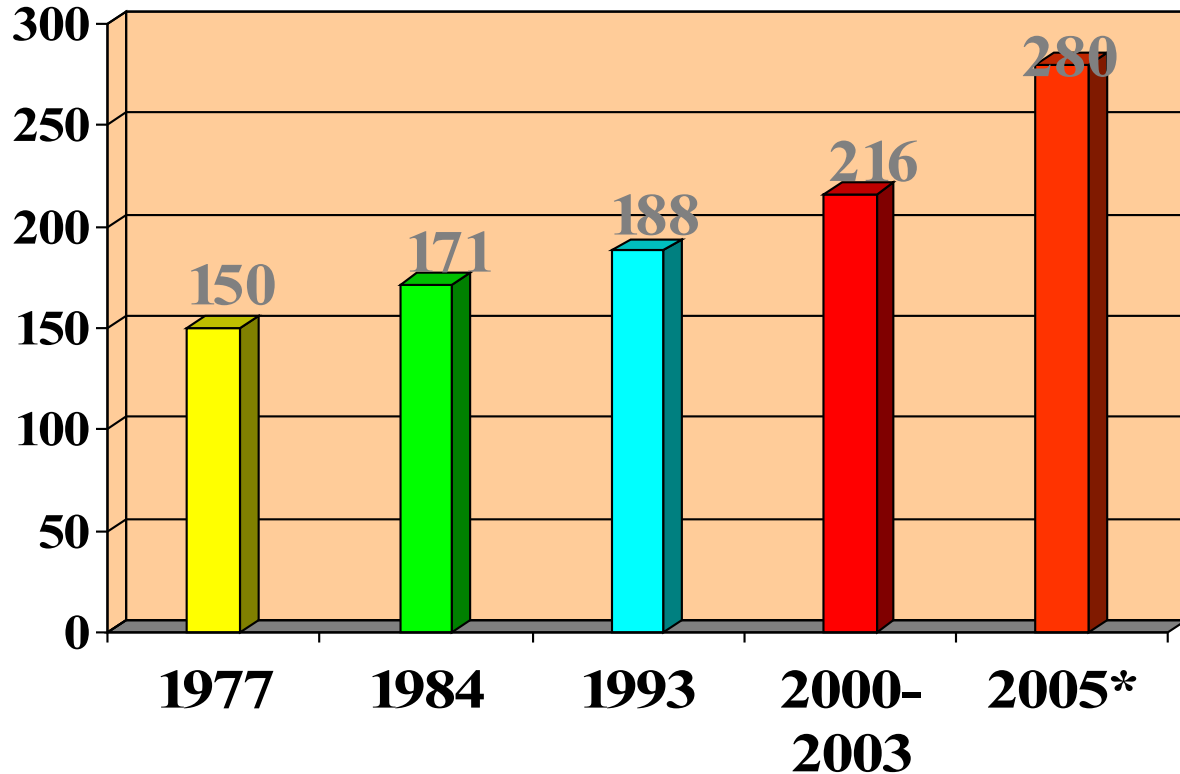
- Surveys of reading, focusing on critical incident of last article reading
- 1977 to the present
- Supplemented by focus groups, usage log data, observations of online interactions, and budget data

Faculty members...

1) ... read more articles. Amount of reading is an implicit value of reading.

Average number of article readings per year per university science faculty member in the US

Average number of article readings per scientist



*311 with outliers, 2005, n=932; 2000-03, n=397; 1993, n=70; 1984, n=865; 1977, n=2350

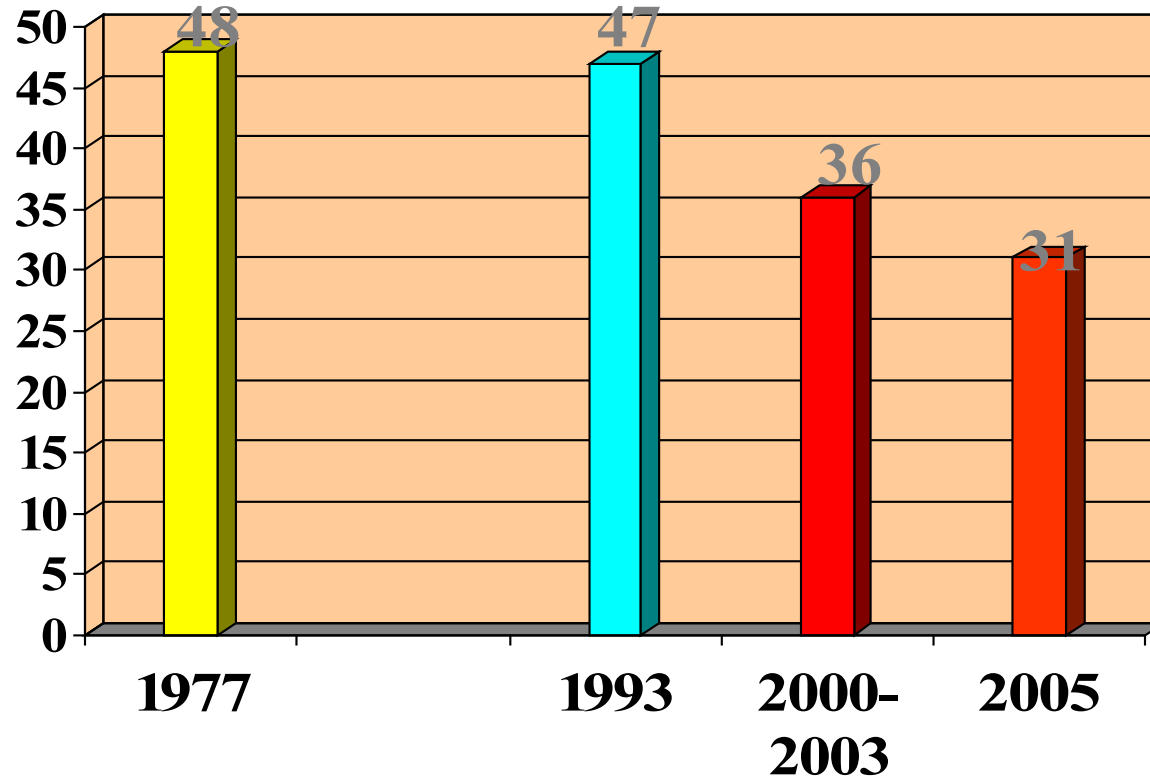
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School of Information Sciences

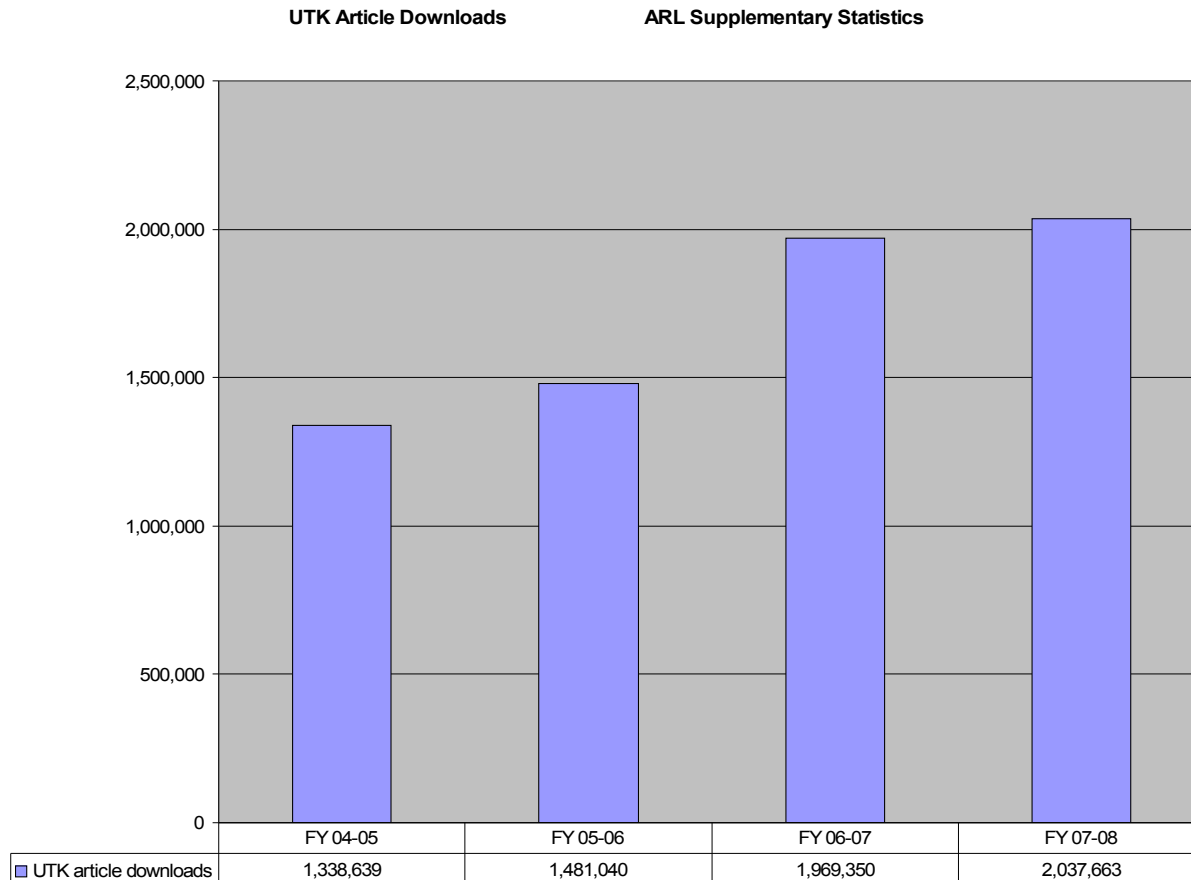


Average time (in minutes) spent per article reading by science faculty member in the US

Average minutes per article reading per scientist



University of Tennessee Knoxville Article Downloads 2004 - 2008



Implicit Value of Reading Articles

- Users are “willing to pay” with their time
 - Faculty spend on average ~143-159 hours per year just reading
 - Medical faculty spend on average ~168 hours per year just reading
- Award winners and productive authors read more than others

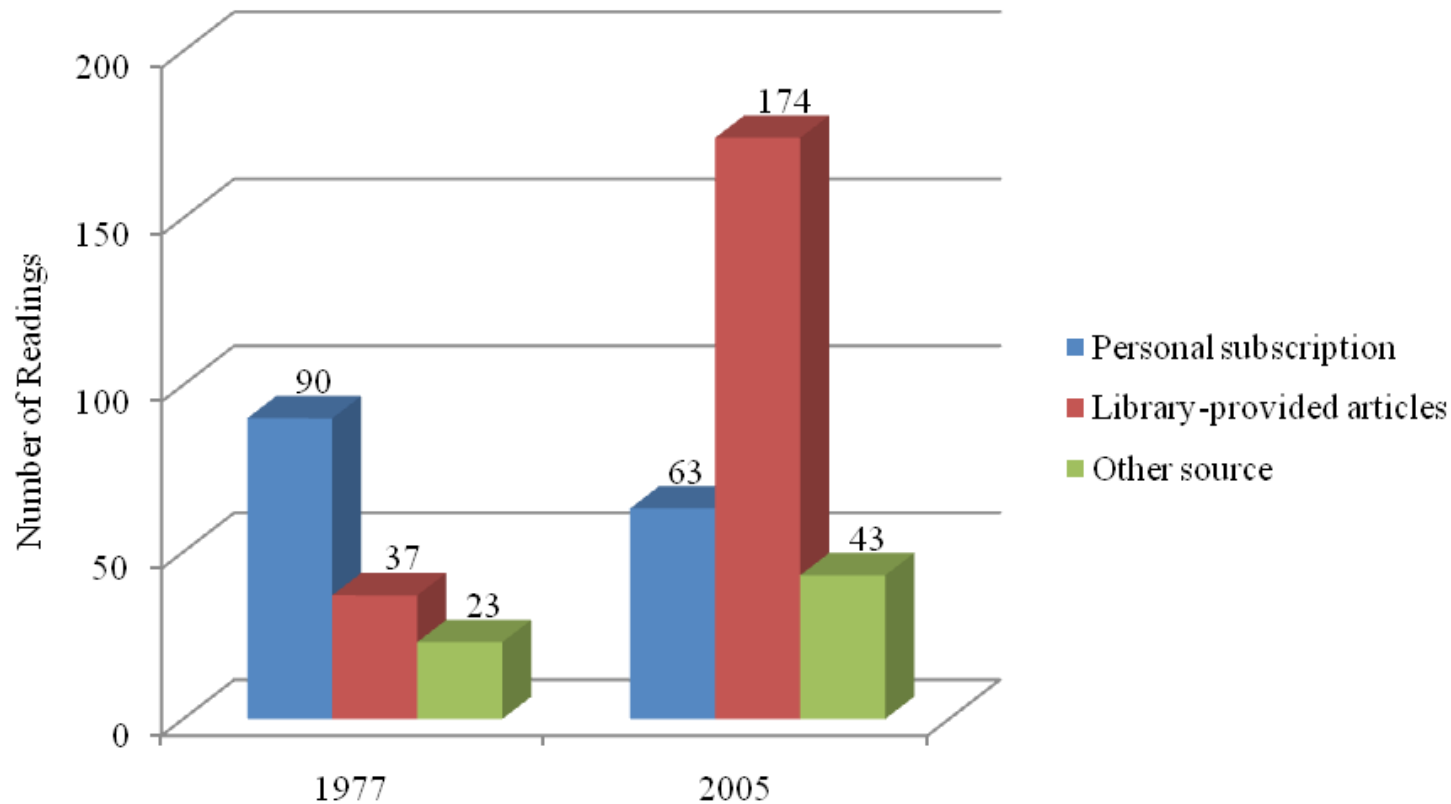
Faculty members...

- 2) ...read from a wider variety of sources and use many ways to get articles. Increase is both an implicit and explicit value of libraries.

More sources for readings

- In 1977 researchers read on average at least one article from 13 journals
- In 1995 that number had increased to 18
- By 2003 it was 23
- By 2005 it was 33

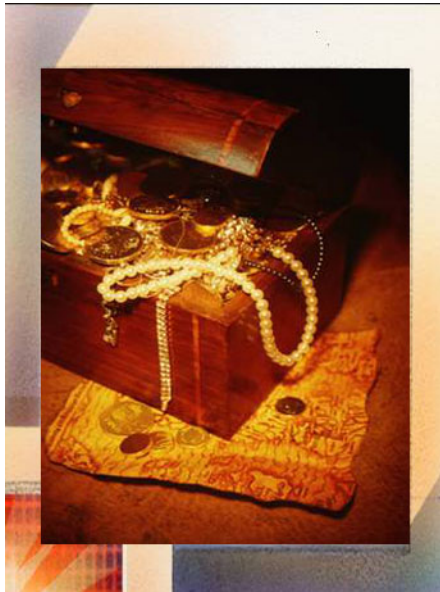
Readings from the library have greatly increased over time



Value of E-Resources (Faculty comments)

“The task of finding the most pertinent articles on a new topic used to take a full afternoon. The same work can now be completed in 15 to 30 minutes.” U.S. University

“It has helped me open or discard lines of research at the very beginning by knowing what other researchers have published or are soon going to publish.” EU research institute



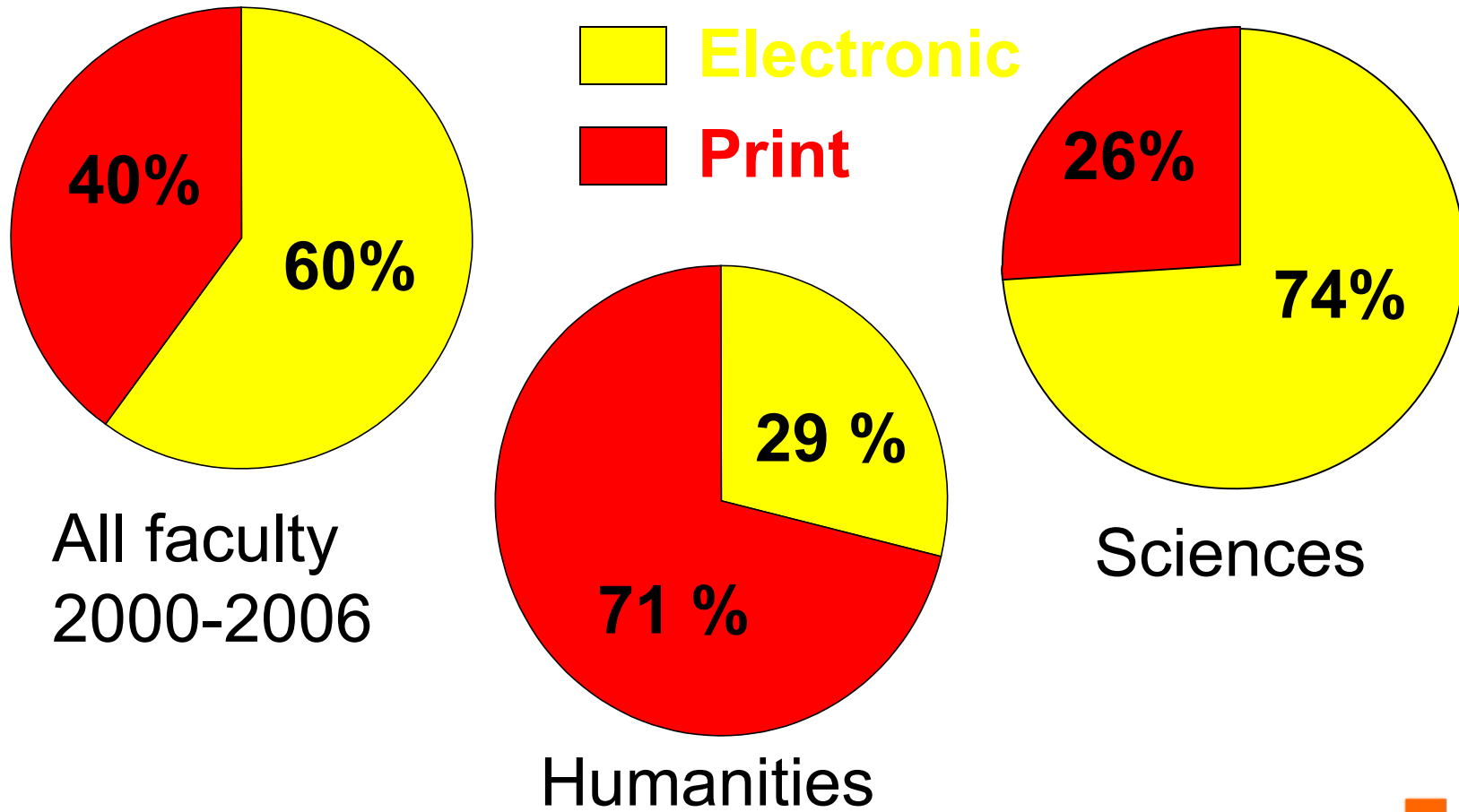
“You have access to many more articles and although you do not read them completely, you are more aware of what is going on in the field.” EU research institute

“Access has made collecting research resources infinitely more efficient; and facilitated interdisciplinary research.” U.S. University

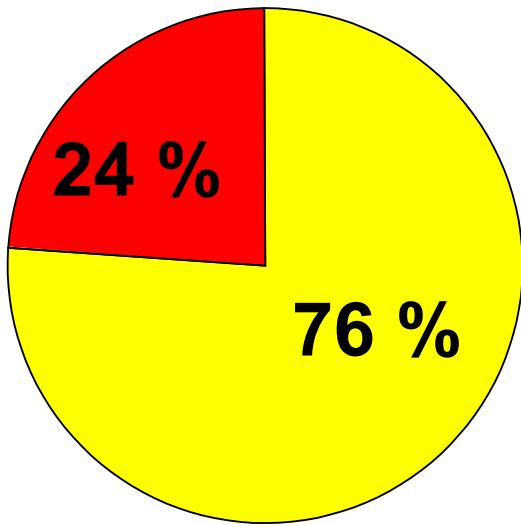
Faculty members...

- 3) ...still read from both print and electronic sources. E-readings more often from libraries and reported as valuable.

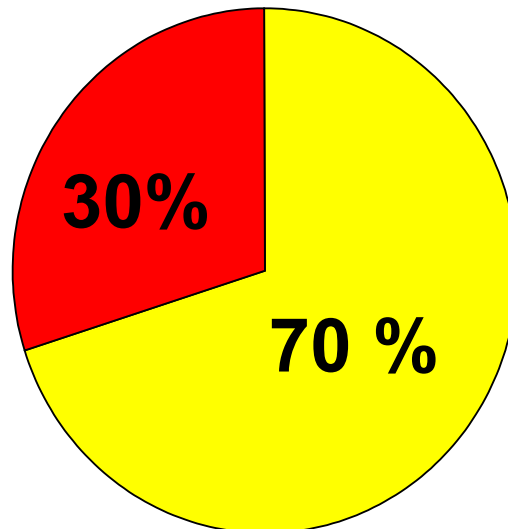
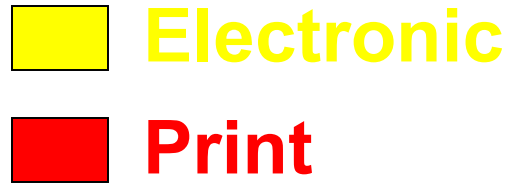
Print or Electronic for scholarly articles



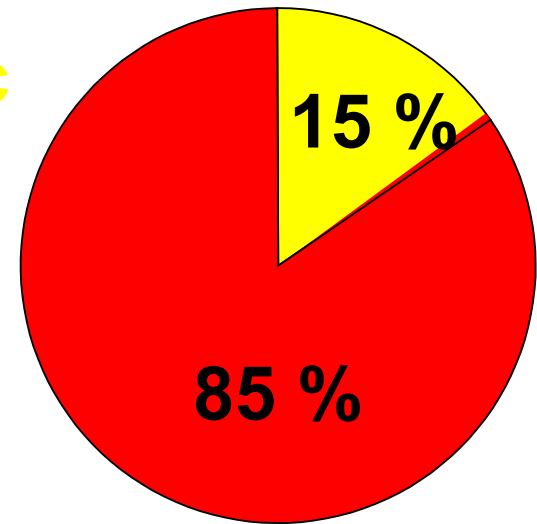
Print or Electronic for scholarly articles



Library-
Provided



Other



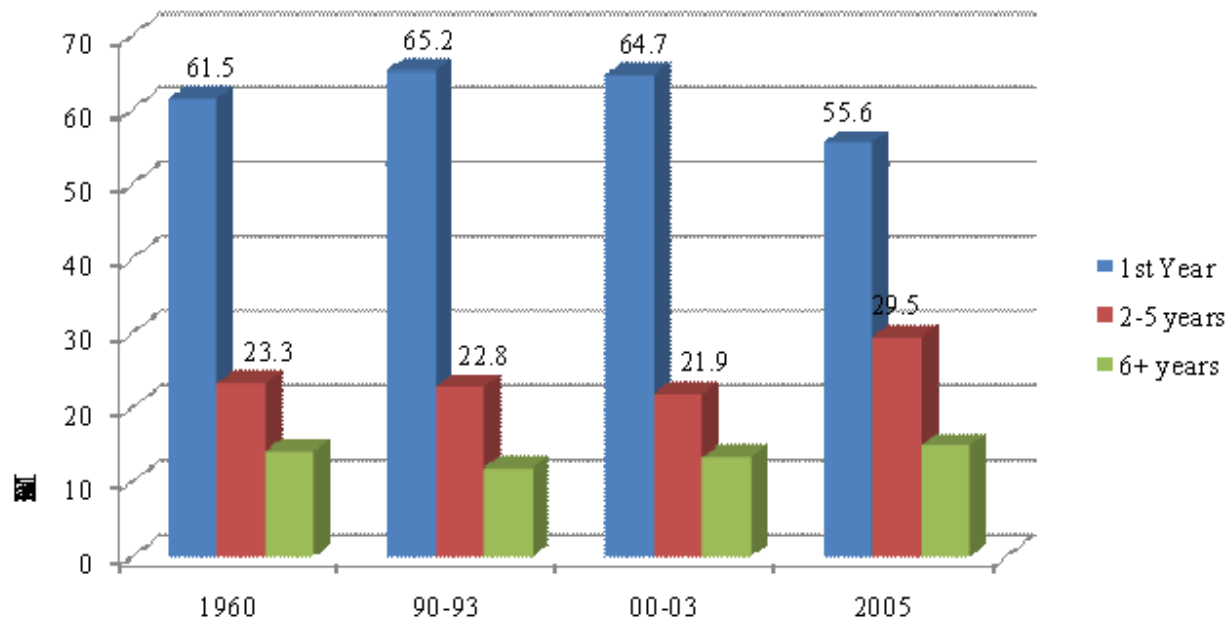
Personal
Subscriptions

Younger readers prefer electronic

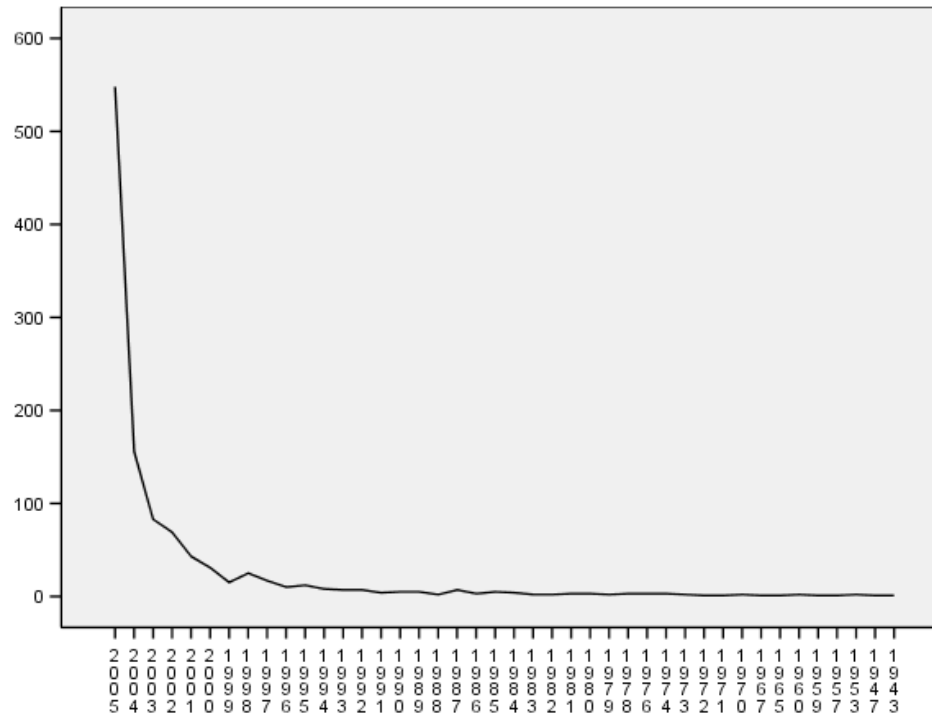
(faculty in U.S. and Australia, 2004-2006, n=1251)

	Print	Electronic
Under 30	13%	87%
31-40	31%	69%
41-50	44%	56%
51-60	46%	54%
Over 60	50%	50%

Readings of older materials may be increasing

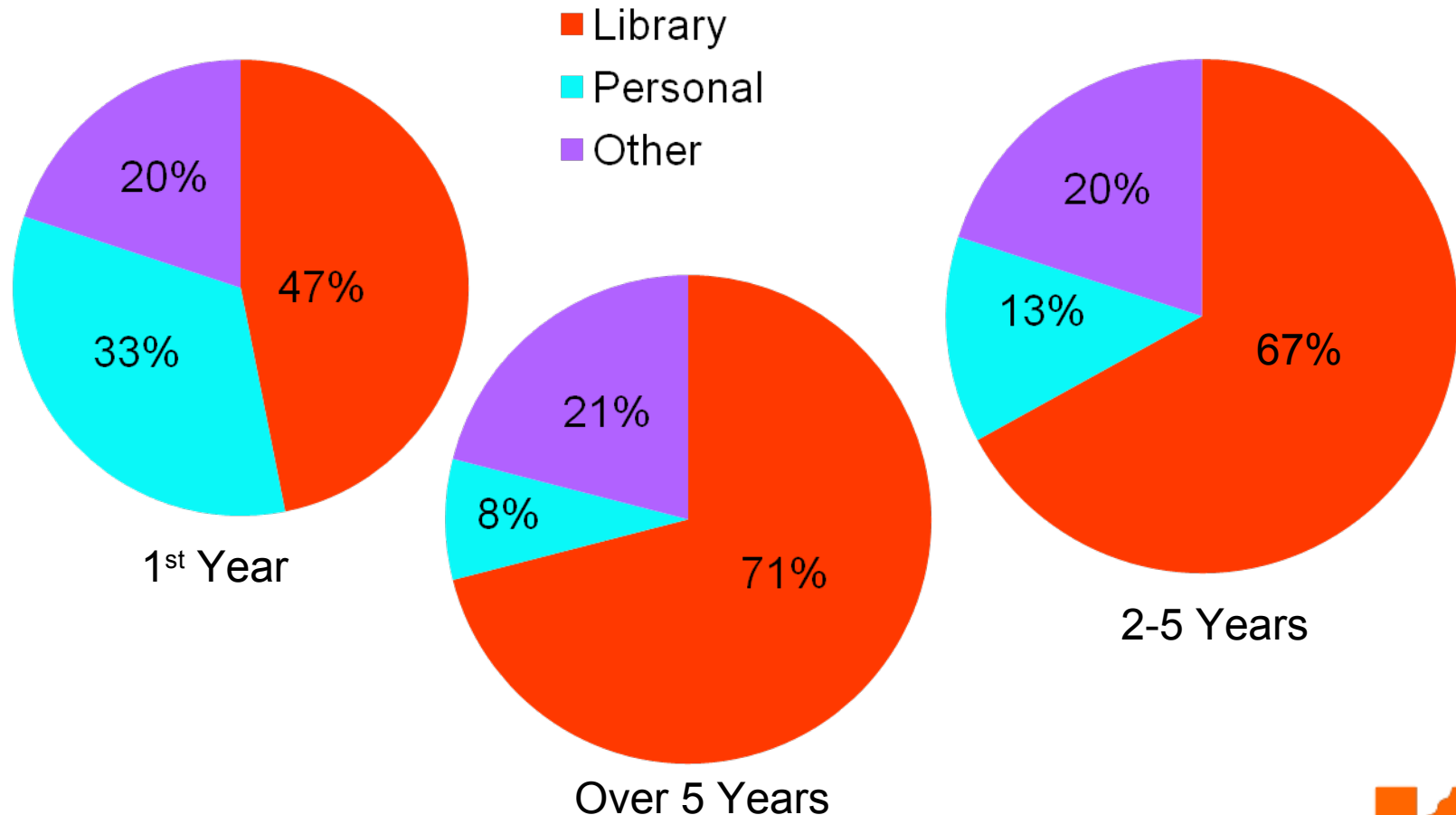


Decay of Article Readings by U.S. University Faculty



Older articles are judged more valuable, are more likely for research & to come from libraries

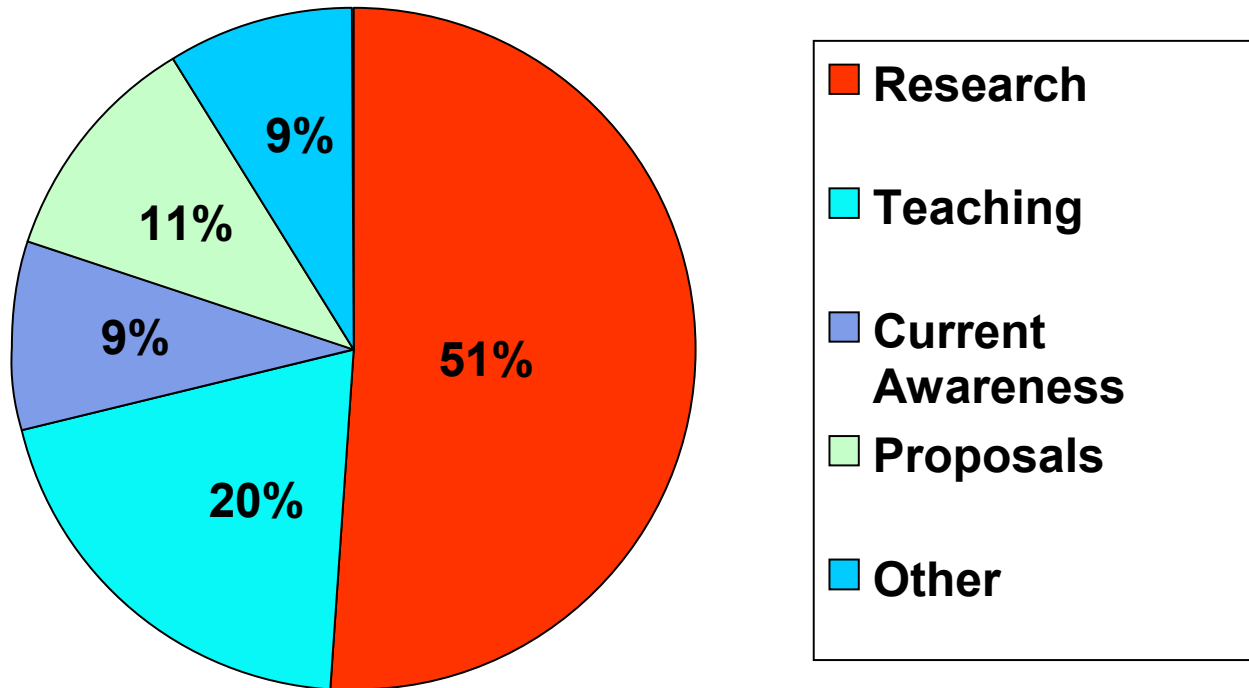
(Faculty in U.S. 2005, n=913)



Faculty members

4) ...report many purposes and explicit values of reading e-journal articles.

Principal Purpose of Reading (Faculty in U.S. and Australia, 2004-2006, n=1433)



Value of Reading in Order of Frequency of Responses

- Inspired new thinking
- Improved results
- Changed focus
- Resolved technical problems
- Saved time
- Collaboration
- Faster completion
- Wasted my time (<2% of readings)

Libraries need to measure what shows their value...

- *“I have dropped some personal subscriptions as they have become available on-line. I rarely visit the library in person anymore... which, compared with the ease and convenience of doing literature searches, downloading and printing from my office/computer, takes too much time.”*

Conclusions

- Usage logs and patterns over time can help with collection decisions and show implicit value of e-collections
- Surveys with critical incident can show implicit and explicit value of print and electronic collections
- Importance of the library is increasing and we need to show that with accurate measurements of value



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