

Electronic Publication: The Narrowing of Science and Scholarship?

James Evans
University of Chicago

Carol Tenopir
University of Tennessee



What we are looking at and how we look at it is different...

Tenopir & King

- readings
- surveys (and some logs)
- Self-reported behaviors (and changes over time)
- tens of thousands

Evans

- citations
- citation analysis
- Compare expected changes with reality
- millions

Tenopir and King's conclusion...

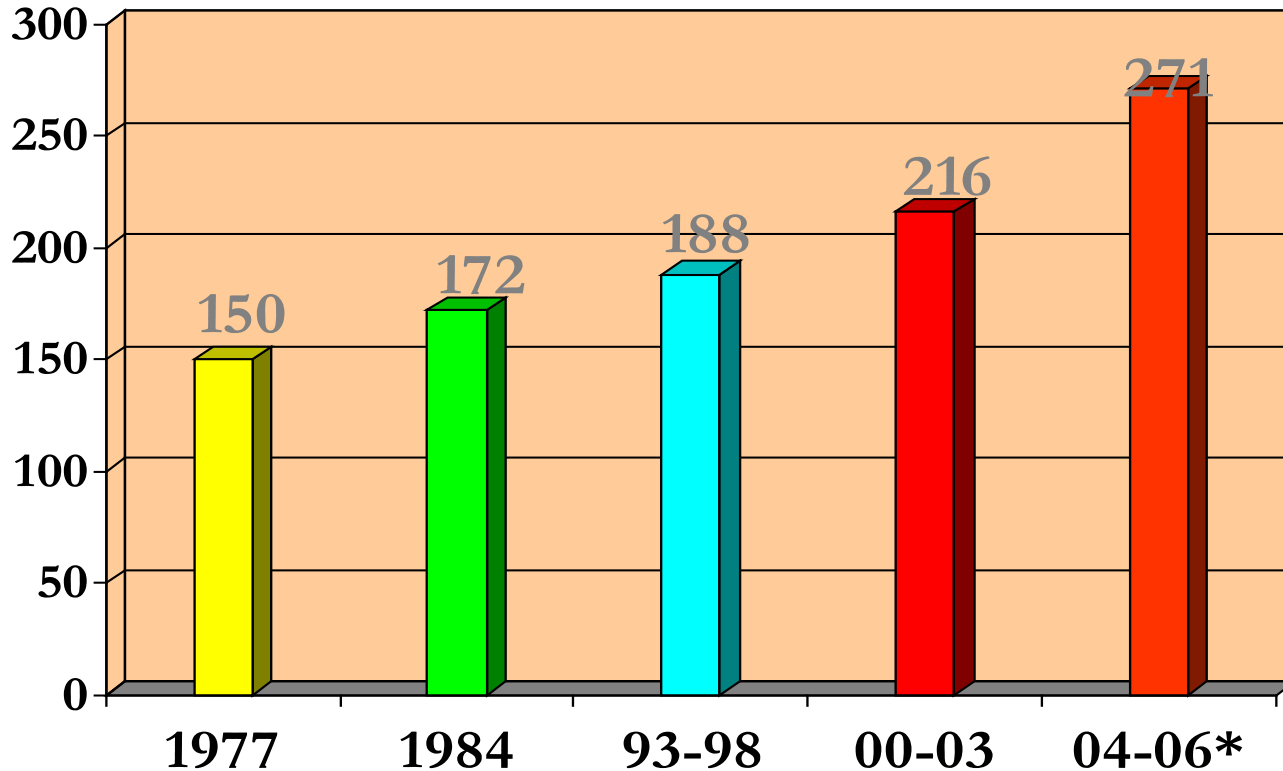
*e-journals broaden reading and,
therefore, science*

Evidence

1. Survey responses and log files show more reading, from more sources
2. Academics tell us in open-ended comments
3. For every article cited, many more are read

Average Article Readings per year per University Faculty Member in the US and Australia (n=1674)

Average number of articles read per scientist



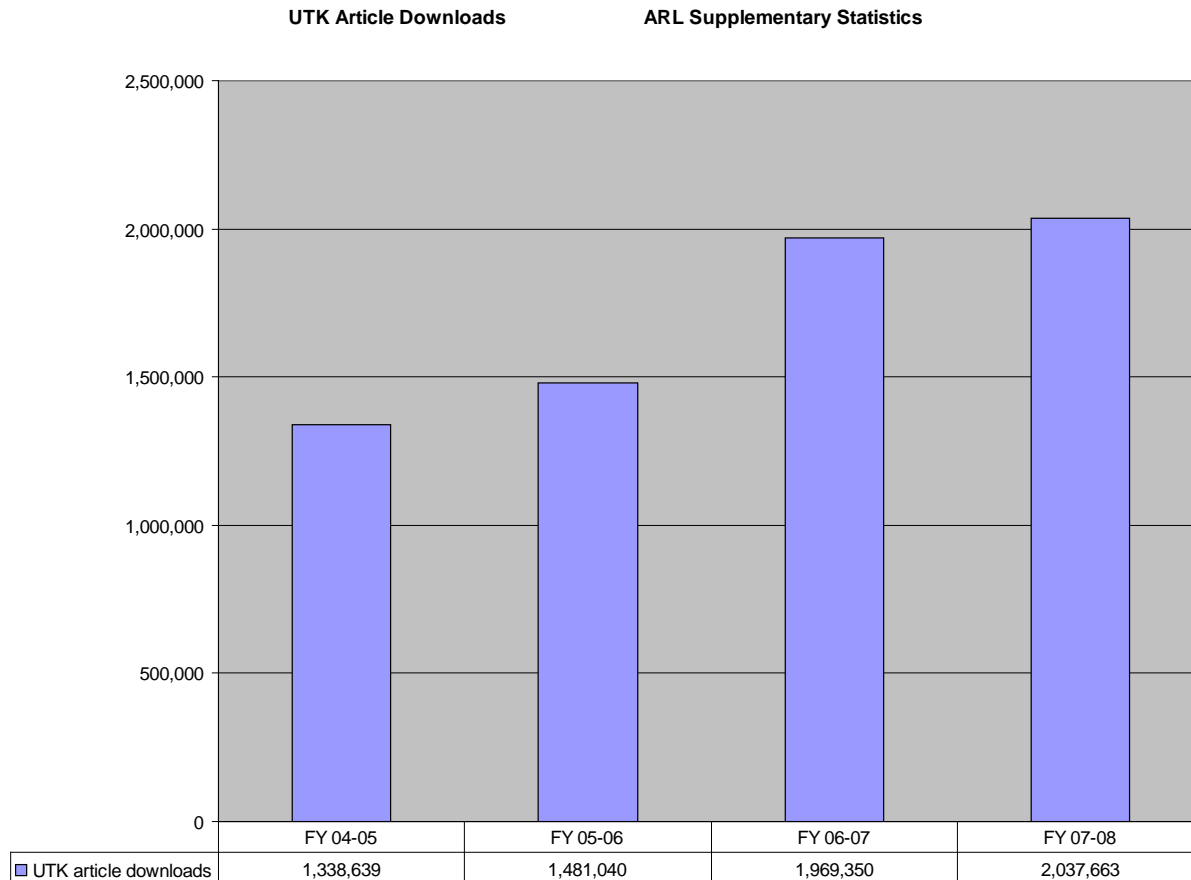
*311 with outliers

THE UNIVERSITY of TENNESSEE

School of Information Sciences



University of Tennessee Knoxville Article Downloads 2004 - 2008



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

Comments from academics (worldwide) 2008-2009

- “I am able to look up secondary references that I might have over-looked when not available on line...has greatly affected my ability to be more knowledgeable and inclusive.” (U.S. university)
- “...I read and cite a wider range of material, especially material outside my discipline, and I feel more confident that I am engaging with the relevant literature.” (Canadian university)

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- “This access has made collecting research resources infinitely more efficient; it has also facilitated interdisciplinary research.” (U.S. university)
 - “The system allows [me] to save a lot of time and to update knowledge especially from areas of research that otherwise remain practically ignored.” (Western European Research Institute)

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- “Having access to a much, much wider range of English-language resources than before is...a huge change for the better, as an English-speaking researcher in Japan. I have always crossed disciplinary boundaries in my own research, but this is much easier to do with access to electronic resources.” (Japanese university)

Relationship between citing and reading

Universities	Avg. # of citations in a paper	Avg. # of readings per citation
Western European Research Institute	21.8	26.9
Korean University	21.6	40.2
Canadian University	26.5	24.3
South African	19.0	18.9
Japanese University	14.9	24.1
Hong Kong University	17.3	25.4
US University	22.3	18.0

Readings and citations of science articles...

- ~1,000 readings per article on average
- For every citation ~45 readings
- In 1977 it was about 700 readings per article or about 55 readings per citation

Those who cite or plan to cite their last reading, report more readings on average in last month

Cite article in a paper or report	N	Mean readings in last month
No	201	17
Maybe	309	23.3
Already did	213	24.6
Will in the future	314	30.6
Total	1037	24.6

So...

- Readings are increasing
- Variation in sources is increasing
- For every article cited, many more are read
- James Evans will give us a closer look at citation patterns...

For more information

ctenopir@utk.edu