

Revitalizing Older Published Literature: **Preliminary Lessons from the Use of JSTOR**

Kevin Guthrie

www.jstor.org

The Economics and Usage of
Digital Library Collections

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Overview

- Where we are today
- Comparing JSTOR use to paper
- Distribution of Use
- Citations and Usage
- Age of Most-Used Articles
- Usage and Value?

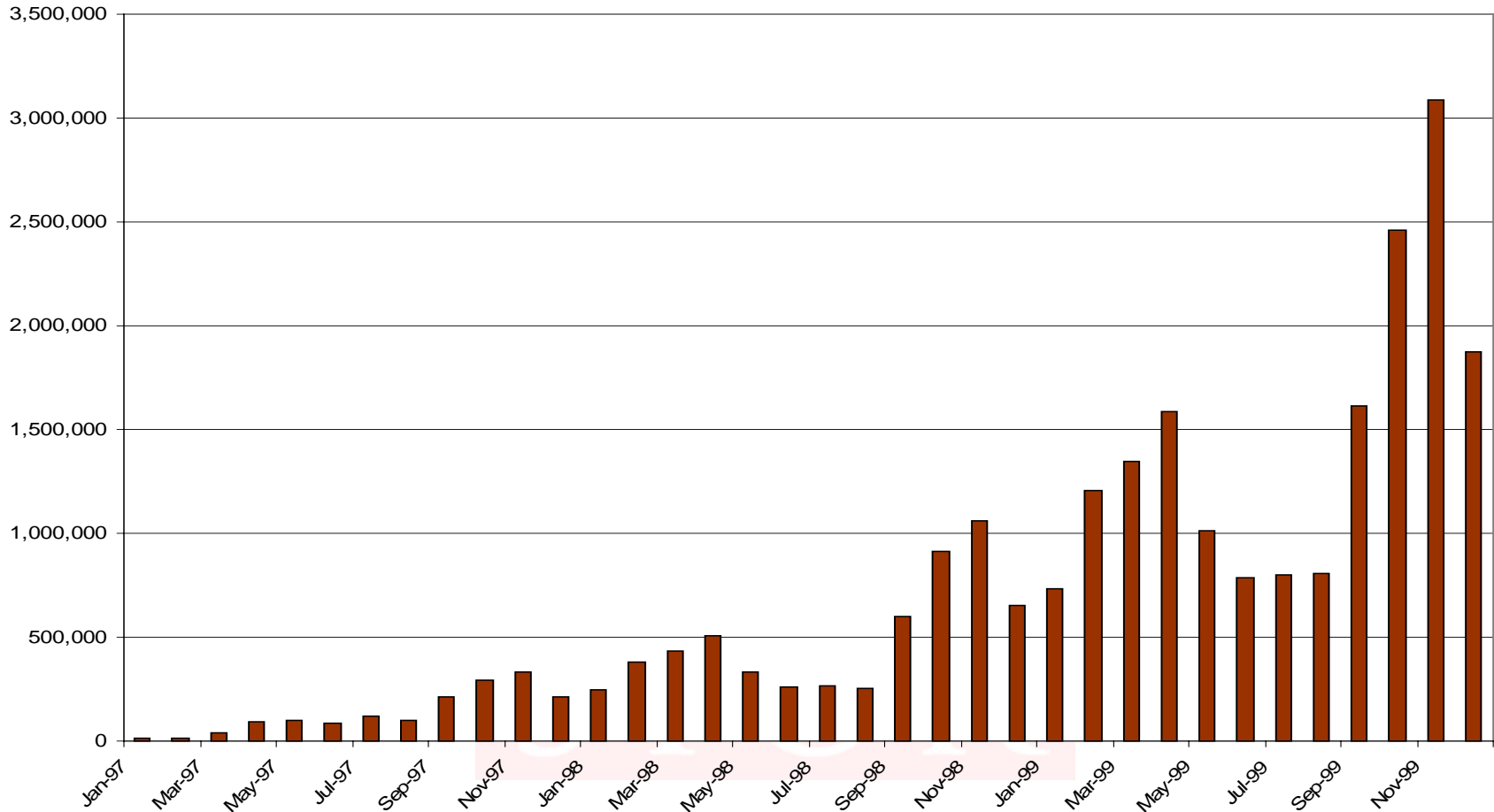


Where we are today

- 117 titles, 15 disciplines, 5 million pages
- 671 participating libraries
- 1999 Usage
 - 17 million total accesses
 - 4.3 million searches
 - 1.3 million articles printed
- JSTOR is “free” to the user



Total Accesses 1997 - 1999





JSTOR Use by Discipline

Discipline	All time	1999
African American Studies	3%	4%
Anthropology	2%	2%
Asian Studies	2%	2%
Ecology	5%	5%
Economics	23%	21%
Education	3%	3%
Finance	3%	3%
History	18%	17%
Literature	5%	6%
Mathematics	3%	3%
Philosophy	4%	4%
Political Science	14%	15%
Population Studies	3%	3%
Sociology	10%	11%
Statistics	3%	3%



JSTOR Use vs. Paper

- Benchmarking study for paper
 - 10 Journals
 - UM and 5 colleges
 - Volume slips
 - Staff monitoring
- Total Uses - 692 over 3 months



JSTOR Use vs. Paper

- Use at Same Sites (3 months)
 - 7,696 articles viewed
 - 4,885 articles printed
 - 12,581 total views and prints
- Total Paper Uses: 692



JSTOR Use vs. Paper

- 82 Selected sites with access on 4/1/1997
1997-1998 Growth: 243% (3.4x)
1998-1999 Growth: 145% (2.5x)
Cumulative Growth: 740%



Interdisciplinarity

- 68,000 searches in a recent week
 - 62,000 (90%) over more than one title
- 58,000 searched clusters
 - 40,000 (69%) over more than one cluster



Distribution of Use

- 831,087 articles in the database
 - 356,978 full-length articles
 - book reviews, letters, front matter
- 52% of the articles have been viewed!
- 48% of the articles have never been viewed!
- 30% of all articles have been printed.

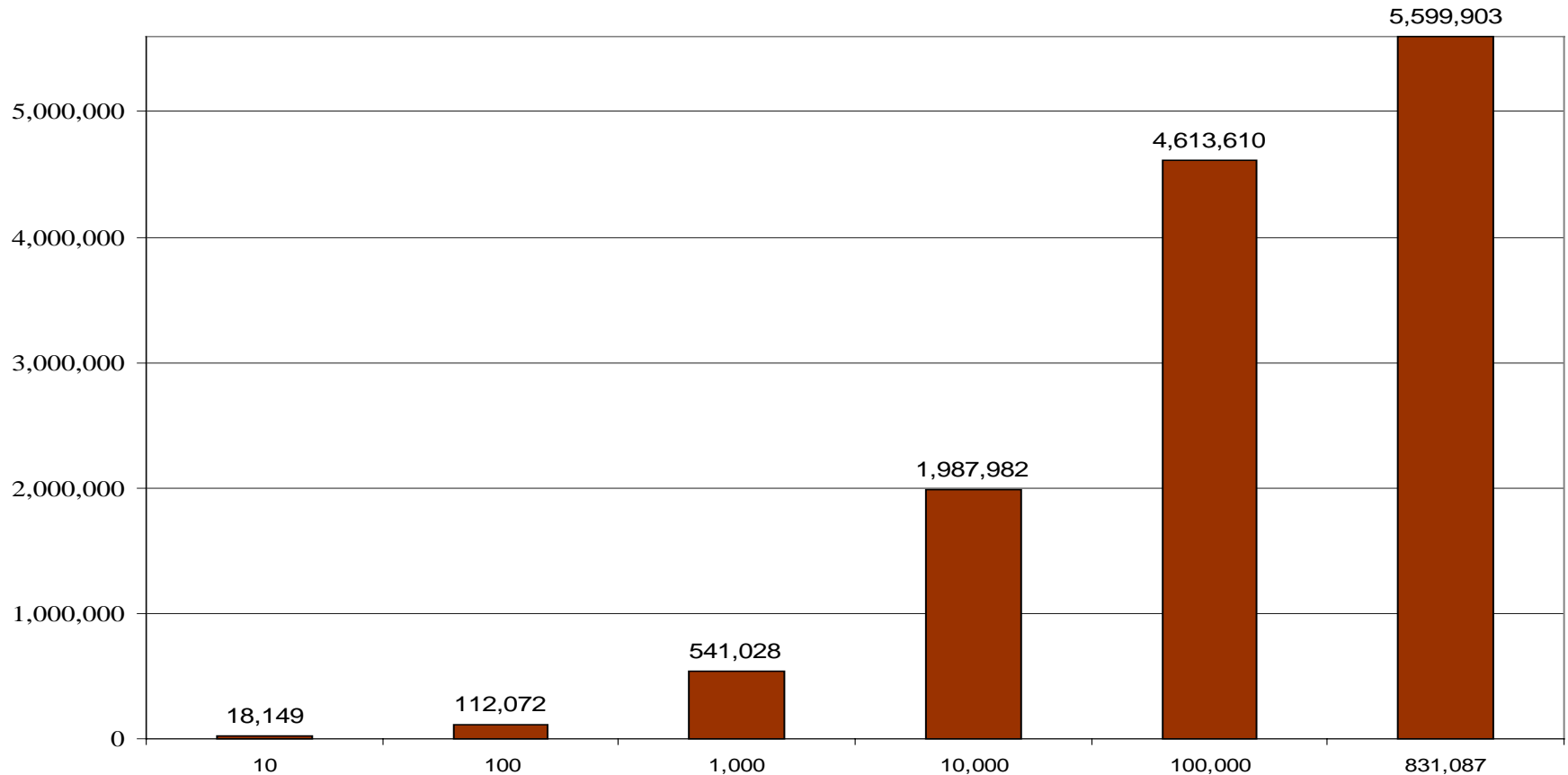


Spread of Article Views

Top n articles	Views of those articles	% of Total Views
10	18,149	0%
100	112,072	2%
1,000	541,028	10%
10,000	1,987,982	36%
100,000	4,613,610	82%



Spread of Article Views





Cites and Usage

- Citations as selection criterion
- Top Ten Article Analysis





Cites and Usage

JSTOR Usage – Economics Cluster

Journal Title	Number of Times Cited	Average cites/year	JSTOR Views	Year of Publication
American Economic Review				
Article 1	79	24.1	1,670	1968
Article 2	77	15.7	1,232	1945
Article 3	181	35.9	1,316	1981
Quarterly Journal of Economics				
Article 1	175	32.4	2,426	1970
Article 2	104	26.6	2,400	1992
Article 3	216	50.9	1,583	1991
Journal of Political Economy				
Article 1	4	0.5	1,815	1973
Article 2	8	21.1	1,480	1990
Article 3	93	17.2	1,258	1983



Avg. Age of Most-Used Articles

	Num. Of Titles	Num. Of Views	Pct. Of Views	Avg. First Year of Publication	Avg. Age of Top Ten Articles
African American Studies	7	16,637	4%	1959	3
Anthropology	6	12,301	3%	1954	4
Asian Studies	5	5,433	1%	1936	11
Ecology	6	19,293	5%	1943	11
Economics	13	87,711	22%	1936	13
Education	4	13,153	3%	1946	11
Finance	5	13,201	3%	1958	10
History	15	58,365	15%	1934	12
Literature	10	23,992	6%	1946	7
Mathematics	11	7,344	2%	1932	32
Philosophy	10	16,538	4%	1931	16
Political Science	10	52,201	13%	1933	8
Population / Demography	8	15,808	4%	1965	5
Sociology	9	41,387	11%	1945	6
Statistics	11	8,480	2%	1994	9



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Usage and Value? - Math

- Average Article Age in Top 10: 32 years.
- Mathematicians emphatic JSTOR supporters.
- Largest cluster by page count. Low usage.
- Does the comparatively low JSTOR usage indicate that older math articles are not valuable?
- “Research value” vs. “Usage value”?



Summary

- Electronic access seems to have increased use of older materials.
- Interdisciplinary nature of collection seems to be valued.
- Citations alone are not a good predictor of electronic usage.
- Older literature valuable in many fields.
- Important to understand the “value” of usage.