

The Peculiar Market for Academic Journals

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A curious market structure

- Private profit-maximizing firms and non-profit societies and academic presses *both* are significant players.
- Most of the workforce--authors and referees--work for free.

Pricing of Paper Editions

- The 6 most-cited journals in economics are owned by non-profit groups.
 - Average price to libraries is \$180 per year.
- Only 5 of the 20 most-cited journals are owned by commercial publishers.
 - Average price to libraries is \$1660 per year.

Table 1: Costs of Economics Journals

Publisher Type	Number of Journals	Price per Page	Price per Cite
Non-Profit	91	\$0.18	\$0.15
For-Profit	206	\$0.82	\$2.40

Table 2: Journal Prices by Discipline

(In US \$)

Cost per page

Cost per cite

For-profit

Non-profit

For-profit

Non-profit

Ecology	1.01	0.19	0.73	0.05
Economics	0.83	0.17	2.33	0.15
Atmosph. Sci	0.95	0.15	0.88	0.07
Mathematics	0.70	0.27	1.32	0.28
Neuroscience	0.89	0.10	0.23	0.04
Physics	0.63	0.19	0.38	0.05

Table 3: Costs of a Complete Economics Collection

Publisher Type	Percent of Cost	Percent of Cites
Non-Profit	9%	62%
For-Profit	91%	38%

Table 4: Costs of a Complete Optics Collection

Publisher Type	Percent of Cost	Percent of Cites
Non-Profit	46%	87%
For-Profit	54%	13%

Table 5: Costs of a Physics Collection: Heinz Barshall's Sample

Publisher Type	Percent of Cost	Percent of Cites
Non-Profit	39%	79%
For-Profit	61%	21%

Division of Labor

- The greatest improvements in the productive powers of labour... seem to have been the effects of the division of labour.... Adam Smith, *Wealth of Nations*
- Illustrated by scholarly publishing:
- Non-profits supply most of the citations.
- For-profits collect most of the money.

Survey of Physics Chairs and Librarians*---Optical Society of America

Which kind of journal do you think is more costly to libraries?

- Non-profit journals
- They cost about the same
- For-profit journals

*Replies received from 69 librarians and 26 physics chairs.

Which costs more?

Librarians say:

Non-profits	0%
About same	4%
For-profits	96%

Physics Dept Chairs say:

Non-profits	8%
About same	38%
For-profits	53%

What do we conclude?

- Librarians are brighter than physics chairs?
- Overpricing arises when users don't know the costs of what they demand. (also true of textbooks, medicine)
- Scholars who donate their articles and referee services to overpriced commercial journals don't realize that they are being exploited.
- Libraries and societies should publicize the facts of pricing.

Monopoly Profits in Academic Publishing?

- Hint: University press and professional society journals are usually *not* subsidized
- They charge $1/5$ as much per page as for-profit journals.

Elsevier Financial Statement

- Elsevier reports revenue 2 billion Euros in 2002.
- Claims to have 3d biggest internet revenues, behind AOL and Amazon.
- Reported profits equal 33.6% of revenue.

Why “only” 33 % profit margin?

- If they charge 5 times as much as non-profits, why aren't Elsevier's profits even greater?
- Smaller subscription bases, due to high price
- Rent dissipation
 - Elsevier CEO got ~\$2 million pay and \$8 million in shares this year.
 - New stock options of ~\$32 million for top execs.
 - Armies of lobbyists

If there is free entry, how can there be monopoly?

- Unlike market for shoes or groceries, competitors are prevented by copyright from offering perfect substitutes.
- Coordination and reputation makes it hard for new entrant to attract top quality articles.

Fable of the Anarchists' Annual meeting

- Once upon a time a bunch of anarchists happened to get together on January 3 in a hotel in Kansas City
- They had a grand time.
- Next year more anarchists came and they had even more fun.
- The tradition grew and meetings got bigger and more enjoyable.

Trouble in Kansas City

- One year, the hotel owner raised his rates at conference time.
- Attendance fell a little and owner's revenue rose a lot.
- Next year owner did it again.
- Anarchists grouched, had less fun with the smaller crowd and higher prices.
- Why didn't they move to another hotel?
- They are anarchists!

The strange economics of academic journals

- If one brand of car cost 6-15 times as much as others of the same quality, how many would be sold?
- Almost zero, because people would substitute low priced for high priced.
- Why then do commercial journals that cost 6-15 times as much per cite as nonprofits continue to sell?

Journals as Complements

- Academic journals tend to be complements, not substitutes.
- Two copies of cheap society journal will not replace a subscription to Elsevier journal that costs 10 times as much per cite.
- Many scientists want to read all significant research in their area, not just the top papers.

More strange economics

- With most goods, middleman pays producer, consumer pays middleman.
- With journals, producer pays middleman (often not much), consumer pays middleman

Open Access Model

- Producer pays middleman, consumer pays nobody.
- Would this work for nonprofits?
- Would this work for profit-maximizers?

Non-profit open access?

- To succeed an open access journal must attract authors.
- Are authors and their universities willing to pay to have their work read and cited?
 - Evidence that open access articles are more cited.
 - Economic study: avg citation worth \$40 per year.
- But will they pay \$1500 as for PLOS.
- Remains to be seen.

Partial open access models

- Authors of accepted articles can pay a surcharge for their paper to be open access.
- Journal still sells subscriptions to entire journal.
- OUP's Nucleic Acids Research—90% of authors chose to pay \$530.
- PNAS survey 40% would pay \$500 to make their PNAS articles open access.

Open access and competition

- With for-profits, competition on the author side is likely to be much stiffer than on reader side.
- Would any author submit papers to a journal that had submission fees 6-15 times as high as equivalent competitor?
- Not likely. Why?
- From authors view, journals are substitutes not complements.

Libraries as toll collectors?

- In PNAS article, CB and I argue that library purchase of site licenses from profit-maximizers reduces well-being of academic community.
- Better outcome if Elseviers of world are forced to deal with individuals.
- For nonprofit journals, the conclusion is opposite.
- For these site licenses enhance efficiency by improving access without increasing cost.

What should libraries do?

- Decentralize some decision-making to academic departments.
- Replace “allocation by whining” with real money tradeoffs.
- Subsidize new journals, submission fees for open access, or even pay-per-views.
- Where does money come from?

How to deal with the Big Deal: A modest proposal

- Stop being gatekeeper and revenue collector for overpriced journals.
- Set a maximum price/citation a little higher than that of non-profits in the same field and refuse to buy electronic subscriptions at any higher price.
- Let journals that charge more sell to individual subscribers, subscriptions or pay-per-view.

Had enough?

- OK, then, I'll quit

Want more?

- Check out

www.econ.ucsb.edu/~tedb

...papers, statistics, weasel's manual, etc

Data Sources:

- Tables 1 and 3 are from Free Labor for Costly Journals, by T. Bergstrom— J Economic Perspectives, Fall 2001.
 - Table 2 appears in C. Bergstrom and T. Bergstrom, The benefits and costs of academic site licenses—Proceedings of the National Academy of Sciences, January, 2004
 - The raw data from which Tables 4 and 5 were compiled appears in Excel spreadsheets compiled for me by my research assistant, Beth Dhuey and appearing at
 - <http://www.econ.ucsb.edu/~tedb/Journals/barshallupdate.xls>
- <http://www.econ.ucsb.edu/~tedb/Journals/bethanalysis.xls>