

# Fleeced?

Most mathematicians feel that they *own* their journals. They write and submit papers to their favorite (often specialized) journals. They often referee for those same journals. And some devote time and energy as editors. Throughout this process there is no contact with nonmathematicians, except for some of the editors. It is no wonder that mathematicians have a sense of pride and ownership in their journals.

But the truth is that, legally, mathematicians do not own the commercial journals. Elsevier and Academic Press journals are a highly profitable part of a big corporation. Bertelsmann has recently divested Springer, and now Springer, Kluwer, and Birkhäuser are owned by an investment company (who did not buy these publishers in order to make less profit than before). What difference does it make whether *our* journals are legally owned by big corporations or by societies (e.g. AMS) or university presses (e.g. Princeton, Cambridge) or mathematicians (e.g. *Pacific Journal of Mathematics, Geometry & Topology*)?

Well, the AMS charges under 22 cents per page for its primary journals and makes a decent profit that subsidizes other AMS activities. The *Annals of Mathematics, Pacific Journal*, and *Geometry & Topology* are cheaper yet. On the other hand, the big commercial journals typically charge in the range of 40 cents to over 100 cents per page. A good example is *Inventiones Mathematicae*, which charged 101 cents per page in 2001. A good source for price information is either <http://www.ams.org/membership/journal-survey.html> or [http://www.mathematik.uni-bielefeld.de/~rehmann/BIB/AMS/Price\\_per\\_Page.html](http://www.mathematik.uni-bielefeld.de/~rehmann/BIB/AMS/Price_per_Page.html).

In an article in *The Mathematical Intelligencer*, John Ewing writes: “A rough estimate suggests that the revenue from each article in commercial journals is about \$4,000.” (Imagine a 20-page paper sold at 50 cents/page to 400 subscribers.) “Therefore, the 25,000 mathematics articles in commercial journals in 2001 generated about \$100 million in revenue for commercial publishers.” This is serious money, much of it profit. Roughly speaking, it takes a billion-dollar business to get that sort of profit.

We mathematicians simply give away our work (together with copyright) to commercial journals who turn around and sell it back to our institutions at a magnificent profit. Why? Apparently because we think of them as *our* journals and enjoy the prestige and honor of publishing, refereeing, and editing for them.

Some years ago Senator William Proxmire gave out a yearly award, the Golden Fleece, to government agencies who spent absurd amounts of money on items (it often went to the Pentagon for spending hundreds on some simple tool, for example). If a modern-day senator knew of how mathematicians (and of course other academics)

were indifferent to the cost of their actions to their libraries, we would be guaranteed a Golden Fleece!

How will our libraries handle this situation? Here is an example.

Around five years ago the nine-campus University of California Digital Library signed a deal with Elsevier in which UC would pay the same sum per year as it had paid the previous year for all its subscriptions to paper journals published by Elsevier, and in return it would get those paper journals plus electronic access at all campuses to all Elsevier journals. The deal included increases for inflation and for increased numbers of pages if the journals grew in size. Note that mathematics was a small part of the package, which covered all science journals.

Now five years is up, and financial cutbacks have hit UC. A possible new deal (not yet agreed to by UC in October 2003) is that the overall price will be cut 15 percent, only one copy of each paper journal will be sent to UC, and it will reside in a depository near UCLA. Electronic access to everything is still part of the package. For my campus, Elsevier journals would be electronic-only journals and sold at a very high price.

Compare this with less than a decade ago, when the Berkeley math library, advised by mathematicians, decided what paper journals to buy, partly on the basis of a known subscription price. Now it is not only out of the hands of the math department but out of Berkeley's hands, and because of these large deals with consortia of campuses covering all sciences, the price of an individual journal (paper or electronic) is becoming unknowable.

I would guess that the business strategy of the high-priced commercial journals is to amass vast electronic databases of science articles that are intended to be indispensable and can be sold at something like current prices, thus locking in a very high profit indefinitely.

What can mathematicians do? At one extreme they can refuse to submit papers, referee, and edit for the high-priced commercial journals. At the other extreme they can do nothing. It is hard to think of useful alternatives between the extremes, for we mathematicians will probably be outsmarted by those motivated by \$100 million. A possibility is this: one could post one's papers (including the final version) at the arXiv and other websites and refuse to give away the copyright. If almost all of us did this, then no one would have to subscribe to the journals, and yet they could still exist in electronic form.

Personally, I (and numerous others) will not deal with the high-priced journals. What about you?

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