FROM THE DEAN'S DESK - SCHOLARLY PUBLISHING IN PERIODICALS*

Henry Oldenberg created the first scholarly scientific periodical, the Philosophical Transactions of the Royal Society of London, in 1665, to create a public record of original contributions to knowledge. Oldenberg had it in mind to create a kind of monopoly, hoping that all of Europe’s leading scientific authors would register their discoveries in the Philosophical Transactions. Oldenberg would have no trouble recognizing an article in a scientific periodical today, even a digitally produced article, once printed. He would see text, diagrams, and illustrations. He would be impressed with color illustrations and photographs.

He would be interested to learn that publication of scholarly periodicals has become big business, and increasingly monopolistic. Scholarly journal publishing is becoming more concentrated and non-competitive, with “spectacular mergers and acquisitions,” so that 20% of the core science journals are now controlled by one ‘behemoth,’ Reed-Elsevier. The market for these journals is inelastic, with demand for them little affected by their prices.

The prices of scholarly periodicals have increased by 550% since the base year 1984, at four times the rate of the U.S. Consumer Price Index. Increases in disciplines of interest to us include: chemistry and physics: 710.6%; mathematics and general science: 607.3%; psychology: 601.4%; and engineering: 598.8%. General interest scholarly publications increased in price over the same period by 189.9%. The disciplines with the highest annual rates of increase include chemistry and physics, mathematics, engineering, and psychology. Over a three-year period from 2001 to 2003, 81% of the core titles in chemistry and physics and 80% of the titles in psychology increased in price.

The 2003 highest average price of titles per discipline include chemistry, at $1,905.66, and physics, at $1,856.20. Print index and abstract services such as Chemical Abstracts, Business Periodicals Index, and Psychological Abstracts are critical sources of access to scholarly periodical literature. Since the base year 1984, science and technology indexes have tripled in price, with humanities not far behind. Business is the sole category that has not at least doubled in price. Annual increases typically exceed 5%.

A license for access to ScienceDirect, Elsevier’s package of about 1,000 titles, costs $1.7 million per year. Large library systems such as the University of California have the power to negotiate more favorable pricing. UC received a 25% discount on the 2003 cost for 2004. There is little doubt that Elsevier maintains its purported 40% profit margin at the expense of other less powerful negotiators.

Elsevier is the biggest but by no means the only fox in the periodicals publishing woodpile. Periodicals publishing has been described for years by librarians as a periodicals pricing crisis. Increasing numbers of scholars, economists, and librarians are developing strategies to introduce competition into the scholarly publishing marketplace. Some say that we are witnessing the dawn of the first revolution in the economics of knowledge.

Stay tuned. Next month’s column will feature the major combatants in this revolution.

*Sources for all data are available on request.

EINSTEIN DISPLAY

The year 2005 marks the 100th anniversary of what has been termed Albert Einstein’s *miraculous year*. In 1905, Einstein published three of the physics world’s major works, his papers on special relativity, Brownian motion, and the photoelectric effect.

To celebrate the *World Year of Physics 2005* and its focus on Einstein, the Evans Library announces its “Still Miraculous After All These Years” display of information resources. Beginning July 1, Library visitors can review a collection of books, government documents, videocassettes, Internet sites, and periodical articles to learn more about the man, his theories, and the effects of those theories on the world.

YOU ARE INVITED!

“How Open Access is Changing the Scholarly Publishing System”

Julia Blixrud
Assistant Director for External Relations
Association for Research Libraries

Thursday, October 20
Life Sciences Auditorium
3:30 - 5:00 p.m.

Program funding
by Florida Tech’s Academic Information Technology Committee and the Evans Library

DISPLAYS

Continuing through August is the Library’s "A History of Radio" lobby display. In conjunction with WFIT’s 30th anniversary, this display offers a variety of available books, journal articles, government documents, and Internet site resources as well as a sampling of vintage radios and original sound bites of broadcasts from the early years of radio.

Also continuing is the third-floor government information display on “Natural Disasters”. This federal depository display includes charts and graphs of disaster occurrences, helpful hints on surviving a disaster, and Congressional hearings about such natural disasters as tsunamis, earthquakes, floods, tornados, hurricanes, typhoons, and volcanic eruptions.