

SPARC: Igniting Change in Scholarly Communication

by SHIRLEY K. BAKER

I am speaking today about the current state of SPARC, the Scholarly Publishing and Academic Resources Coalition, initiative of the Association of Research Libraries. I am titling my presentation *Igniting Change in Scholarly Communication*, because that is what has happened. When SPARC was formed, Ken Frazier, the engine behind its formation, said that a spark could be two things: something easily extinguished or the cause of a conflagration. We are delighted and proud to say that this SPARC seems to have ignited a conflagration. Your inviting us here to talk about SPARC is evidence of that.

BACKGROUND

SPARC was a response to the global journals problem. In the 27 years I have been a librarian, I have worried about journal prices for twenty-five of them. The situation shown here is not news to any of you. Prices have gone up far faster and higher than any other measure of growth.

What did we do, pre-SPARC? We engaged in cancellations of journals. We reduced our book purchases to be able to retain more journals. We improved document delivery so that items we did not own could be accessed more quickly and efficiently. We engaged in consortial purchasing and site licensing to gain financial advantages. We „improved transmission of price signals”, i.e. we drew attention to rising prices.

Why did we ultimately create SPARC? We had years of frustration with the actions outlined. Every year, the situation was the same. Or, there would be a year of price amelioration, followed by another steep rise. In ARL we discussed possible action, with increasing frustration and disgust with the continuing problem. We wanted effective action and we wanted that action to lead to long-term change! We recognized that librarians and university admi-

nistrators were not the only stakeholders in this battle. We had to involve other key stakeholders – the creators and consumers of the intellectual content – faculty and the scholarly societies.

The SPARC concept, growing out of this anger and frustration, was amazingly successful. Immediately, seventy ARL libraries signed on. Soon, we had 200 members, libraries of all sizes.

OBJECTIVES

What were SPARC objectives? Of course, ACTION! We had some finer-grained ideas, however. We wanted to offer near-term savings while encouraging long-term solutions. We wanted to encourage competition in the publication community and expand the capacity of the non-profit sector. Additionally, we strove to inform scholars and libraries about the scholarly communication crisis, through improved price signaling. We worked to stimulate study of the issues and possible solutions. And finally, to satisfy our lust for action, we encouraged action that creates change.

We wanted to link advocacy and action. Yes, advocate. Enhance awareness. Promote action options, demonstrate success. But we also wanted to create publishing initiatives. To aid editorial boards and non-profit publishers in their work. To build capacity for alternative models. And to reduce risk for those brave enough to start new ventures that met our goals.

We formed publishing partnerships that met SPARC objectives of lowering barriers to entry into the journal market and encouraging fair pricing models. SPARC took an active role in advising publishers in their new initiatives, in marketing those initiatives, and in encouraging sales early enough to make a difference.

ACHIEVEMENTS

Here are some of our successes. *Algebraic & Geometric Topology* is an initiative of the Maths Department at the University of Warwick - mathematicians seeking a better way to share scholarship. The editor resigned from a \$ 2,500 a year commercial title to launch this journal. It is available free. There is an annual print edition (their interim archiving solution) available for ten cents a page!!!

We have supported channel competition – creating an amalgam of critical titles for an entire area of science – wet biology. This aggregation of Bioscience journals (currently forty titles) launched in April. It was made possible by a ground-breaking collaboration of libraries and small societies, mostly available only in print. *BioOne* is the way for these journals to go digital without going commercial.

I think this is a critical model for society/library collaboration. I am encouraging the adoption of this model in the social sciences and humanities, which are in danger of going the path of science journals – for profit, high-priced.

The far-sighted partners in *BioOne* are SPARC, the American Institute of Biological Sciences, the University of Kansas, the Great Western Library Consortium, and the Allen Press. Libraries put up the money for this start-up, the Allen Press and the University of Kansas provided the technical expertise and infrastructure, and the AIBS retained leadership and control of their journals.

SPARC has encouraged competition in the scholarly communication system. We are supporting competition for authors. Two good examples of that are the nascent Public Library of Science and the creation of e-print repositories, both discipline-based and institution-based. At the same time, we are supporting cross-archive access, through the Open Archives Initiative in metadata harvesting.

Here are some highlights of SPARC's Advocacy Program. We have launched, in collaboration with other library associations, our *Create Change* campaign. This campaign lays the educational groundwork for change. *Create Change* provides librarians with the strategy and tools for working with faculty. It provides faculty with background information and options for action. Check out the website and our brochures.

Another SPARC advocacy effort is *Declaring Independence: A Guide to Creating Community-controlled Scholarly Publications*. The audiences for this effort are the editorial boards of high-priced commercial journals. The components of this effort include brochures useful for mailings, web resources (indicated above) and SPARC advisory services.

Now, for evidence of SPARC's successes.

<i>Established Title</i>		<i>SPARC Alternative</i>		<i>Savings</i>
Topology & Its Applications	\$ 2,509	Algebraic and Geometric Topology	Free	\$ 2,509
Journal of Crystal Growth	8,657	Crystal Growth & Design	\$ 1,600	7,057
Evolutionary Ecology (price reduced in 2001)	560	Evolutionary Ecology Research	305	255
Topology	1,223	Geometry & Topology	Free	1,223
Organic Geochemistry	2,359	Geochemical Transactions	100	2,259
Sensors & Actuators	4,989	IEEE Sensors Journal	395	4,594
Machine Learning	1,006	Journal of Machine Learning Research	Free	1,006
Tetrahedron Letters	9,036	Organic Letters	2,438	6,598
Chemical Physics Letters	9,637	PhysChemComm	100	9,537
Journal of Logic & Algebraic Programming	701	Theory & Practice of Logic Programming	300	401
	\$ 40,677		\$ 5,238	\$ 35,439

Fig. 1: SPARC titles are less expensive

Figure 1 indicates some of our success. In the left column you see the total of prices for ten established titles - \$40,677. In the center column is the total cost of the ten SPARC alternatives to the titles on the left - \$5,238! And, the shocking bottom line, bold on the right - \$35,439 in savings for the SPARC alternatives.

You may ask, however, whether the SPARC alternatives have not just required us to buy them in addition to the established titles. Well, that is a danger and probably a reality in some libraries. However, the key question is, „Where are scholars choosing to publish?“ Indeed, we see that they are

increasingly aware of the fallout from their publishing choices and are moving to the alternative titles.

Authors ARE making the switch. Michael Rosenzweig, originally editor of *Evolutionary Ecology*, declared his independence and left that journal to form *Evolutionary Ecology Research*. In the third year of publication, *Evolutionary Ecology Research* is a viable publication, indexed in all the major services, and with a regular publication schedule. The original *Evolutionary Ecology*, deprived of its founding editorial board, is foundering. Last year it published only two of the expected eight issues; this year so far none.

And, here is another: *Tetrahedron Letters*, the first title to have a SPARC-ed competitor, is facing declining contributions from authors. Its SPARC-ed competitor, the American Chemical Society's *Organic Letters*, has had a fast takeoff. If the trends for each continue, *Organic Letters* should outpace rival *Tetrahedron Letters* within the next year.

SPARC titles ARE viable. To quote Professor Rosenzweig: „Without a doubt, *Evolutionary Ecology Research* would have failed without the help of SPARC. EER is succeeding and its partnership with SPARC has been an absolutely necessary component of that success.”

As a result of, or in concert with, SPARC initiatives, new players are entering the scholarly journal market. Professional societies and university presses have partnered with SPARC. A number of universities have developed innovative approaches to scholarly publishing, with encouragement, advice, and guidance from SPARC. There have been independent start-ups and new hybrids, my favorite *BioOne*.

And, we have seen the impact of competition on price. It is tempting, and probably accurate, to assume that SPARC and *Organic Letters* saved libraries more than \$ 3,000 in the cost for *Tetrahedron Letters* this year.

While we are looking at „what ifs”, take a look at this scenario put together by one of my ARL library director colleagues. The 500,000 pounds is what this library spent in the year 2000 for titles from one large publisher (you guess which). The prices of these titles had been increasing at double digit rates. This past year, the large publisher raised its prices only 6.5%. Note the savings to this library. Market „push back” to prices has an impact! And, these savings can be better deployed supporting expanded services.

And, we have discovered that pressure not only slows the rate of price increases; it reduces price. The American Association of Physical Anthropologists

demanded a new deal from their for-profit publisher. The chair of the society's Publications Committee says, „SPARC played an essential role in our successful negotiations with our journal's publisher...” In response to pressure, the publisher REDUCED the institutional price!!! And, the society got expanded editorial support from the publisher's office.

Let me recap these real victories.

- SPARC titles are less expensive.
- Authors are making the switch.
- SPARC titles are viable.
- New players are entering the market.
- Competition moderates prices.
- Pressure reduces prices.

Not bad work for a bunch of librarians!

And, of course, the *New York Times* has it right: „Although the battle is being fought over subscription prices, what is really at stake ... is the scientific process itself.” SPARC will continue its struggle to bring control of the scientific process back into the hands of scholars and societies - the creators of knowledge.

What are SPARC's current priorities?

- To broaden faculty involvement.
- To support expanded institutional (university and society) roles.
- To widen international participation.