

◆ Keynote Address: Who Needs Editors and Publishers?

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Editors of science, technology, and medicine (STM) are in the hot seat, scrutinized for their seeming lack of openness to new, electronic technology and for stubbornly hanging on to print. Authors, readers, and librarians (who have their own critics) pressure editors and publishers to adopt the electronic publishing mode and capture its potential.

This situation was described by Michael A Keller, Stanford University librarian and cofounder of HighWire Press. Clearly, Keller said, STM publishing must get involved in blog science and create links between informal scientific communication and the established formal system, from which its use—and power—evolved. Its competitors include Google and Yahoo!, which provide access to intellectual expression and books that bypass editors. The newer players are creating fresh business modes from traditional commercial publishing. Simultaneously, they give visibility to texts that would not see such exposure otherwise.

More and more, the economics of scholarly publishing challenges publishers, Keller acknowledged. Many persons have called for reform in scholarly communication, specifically in the path between authors and readers. As informal channels mass-market scholarly information, they are confronting the formal business structure.

How should editors and publishers respond? To Keller, the answer has two parts. (1) Treat STM publishing as you

would anything else: Identify the foibles and mistakes of friends, competitors, and critics by using facts and logic—repetitively if necessary. (2) See, use, and embrace blog science and other mass-media possibilities as beneficial adjuncts to formal communication. Those entities can be part of the engagement, reinforcement, and construction of research communities and alliances with other organizations. With imaginative thinking, editors and publishers can discover how the missions and functions of the entities can work jointly, overlap, and complement one another. Each organization—each institutional player in the global STM community—is a potential ally for developing scholarly programs, extending markets, and pursuing science.

As sources of publishing and advertising dollars change and self-publishing gains momentum, STM editors and publishers will reconstruct their value to others and earn new dollars in venues not available 2 decades ago.

Keller outlined the scholarly publishing of 2007, including the following aspects:

- Scholarly communication involves more authors and readers than ever before.
- Intellectual access to STM reports is greater, faster, better, and cheaper. As access to research findings has increased, scientific knowledge has expanded.
- The types and function of STM publishing span broader spectra and include e-journals with supportive video and supplementary information. The formality and expectations of scholarly communication have extended to wikis, e-books, MySpace, and others.
- Timeliness of publication delivery has accelerated, increasing the speed of publication for accepted manuscripts.
- Fewer than 10% of researchers take advantage of open-access publishing. As traditional publishers struggle to get manuscripts and their cash flow is



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Michael A Keller delivers the keynote address.

stymied, they look to other revenue streams, including author fees and subscriptions.

- Distribution of STM research results has benefited hugely from e-publishing. Editors and publishers who have taken advantage of Internet publishing have helped to improve how science is conducted.

To claims that editors and publishers have lost their value, Keller responded that the selection, review, and judgment that editors apply to manuscripts—evaluating them for scientific method, research ethics, and reporting—are primary in producing high-quality STM publications. Publishers and journal managers need to report the evidence of how editors perform their principal role of selection and evaluation. How many manuscripts are submitted, how many accepted for review, how many ultimately published? Once published, what is an article's impact factor, how many times is it cited (an indication of its relevance, importance, and quality), and which images are downloaded? Those statistics are not only interesting; they are evidence of the STM editor's crucial role.

It's time to get off the defensive, Keller told CSE. It's time to identify, celebrate, and publicize the contributions of STM editors and publishers. 🗣️