Publishers map out a way forward in response to free online archives

Commercial publishers plan to link up their journals, stealing the thunder of free repositories for life-science papers — and protecting their revenues.

Paris

Plans by the US National Institutes of Health (NIH) and the European Molecular Biology Organization to create a free, global repository for primary literature in the life sciences have prompted the major scientific publishers to cooperate, in principle, in setting up an alternative.

At a meeting in Frankfurt last month, 300 publishing executives agreed to link references in the articles they publish to the source papers in their respective publications. Some see this as a challenge to initiatives to provide the primary literature free to all — such as the NIH's PubMed Central (PMC) (*Nature* **401,** 6 & 626; 1999).

If the deal materializes, it will create a web of journal titles owned by different publishers. Publishers argue that for the many scientists with online access to journals via subscriptions paid for by their institutions, the result would be indistinguishable from PMC, as it would allow them to move rapidly and seamlessly from a citation — say from a Medline search — to full text.

David Lipman, director of the National Center for Biotechnology Information at the NIH and one of the main architects of PMC, says he is pleased that PMC has prompted publishers to cooperate. But he argues that the move is "qualitatively different" from PMC, whose goal is "barrier-free access for all," including scientists who lack good library resources and the public.

Drawing the battle lines

Not everyone agrees. Richard Roberts, the 1993 Nobel prizewinner in medicine, describes the publishers' action as a thinly veiled "declaration of war" on PMC, and a bid to defend the status quo and the profit margins of scientific publishers.

Lipman is convinced that PMC will proceed. Two major journals, the *Proceedings of the National Academy of Sciences* (*PNAS*) and *Molecular Biology of the Cell*, have agreed to contribute their content, as have half a dozen smaller journals. The *British Medical Journal* (*BMJ*) is also likely to join. The concept is popular at the scientific grassroots, and Lipman hopes this will put pressure on non-profit learned societies to take part.

Richard Smith, editor of the *BMJ*, agrees. "There is a fundamental conflict for learned societies. PMC forces us to ask ourselves: is our mission to make a lot of money from publishing to underwrite our activities, or are we there to advance science and medicine?"

Such arguments cut little ice in Frankfurt. "Naive idealism," says the chief executive officer of one publishing house. One strong sentiment at the meeting was that PMC is an unhealthy government intervention in the scientific publishing market.

Lipman contests this, arguing that the NIH will only help run the infrastructure of PMC, and that peer review and other services will be provided by whoever wishes to take part — some in the private sector are already taking up the challenge (see page 110). As such, he argues that it is an infrastructure for the research community.

The other concern at Frankfurt was that ventures like PMC would undermine the print revenues of journals, push up prices and reduce quality. "We want to make back material as freely available as we can," says Ellis Rubinstein, editor of *Science*. "But if we give away everything from as recently as one week ago, then we create a problem for ourselves, as subs would decline and those who wanted print or other services would pay more; we would lose our economies of scale".

Smith predicts that most journals will come to exist only in electronic databases, and that the few that survive will be those offering editorial content other than primary literature. Anticipating this, the *BMJ* publishing group is shifting the focus of its specialized journals in this direction. Economies will also be made by making the full versions of papers only available on the web.

Nick Cozzarelli, editor of *PNAS*, believes that his journal's decision to put material on PMC one month after publication will protect its subscription base. "Free access is clearly in the interests of science, and a risk worth taking," he says.

Roberts, who is editor of *Nucleic Acids Research*, published by Oxford University Press, is in discussions with the publisher aimed at putting the journal on PMC early next year, with papers reaching the repository on the same day as print publication.

His proposed business model is based on increasing page charges and decreasing subscription costs. Page charges would cover editorial costs and allow papers to be made freely available. "You don't need to be a rocket scientist to see the benefits for scientists."

Free-for-all? The private sector is already exploring alternatives to traditional publishing.

But Frank Gannon, executive director of the European Molecular Biology Organization and the driving force behind E-Biosci — the European counterpart to PMC (see *Nature* **401,** 413; 1999) — predicts that repositories will only be able to amass enough content by cooperating with commercial publishers. As well as accepting material from authors, E-Biosci would link to material held on publisher's websites.

This contrasts with PMC, which requires that material be held on its own website. This is unacceptable, says Rubinstein. "*Science* cannot participate as PMC now stands," he says, "we cannot put versions of own copy on other sites, as it causes confusion and prevents us from adding enhanced services". Lipman says that "everything is open to discussion".

Although the contents of E-Biosci and PMC will be linked, it is becoming clear that they will to some extent compete. Plans for a single international advisory board have been abandoned. Instead, PMC and E-Biosci will have their own advisory boards; the international board will be made up of representatives of each board.

The PMC advisory board will include representatives from participating journals, librarians and the public, says Lipman, who approves of competition with E-Biosci. "I think it is a great idea," says Cozzarelli, who predicts that the proposals will allay fears that the international board might be bureaucratic and dominated by US interests.

The NIH has asked the US National Academy of Sciences to help appoint the board, in what may be a first step towards transferring the lead role in PMC from the NIH to the academy.

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