

Lunch Selections Expanding

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In the summer of 1999, then-National Institutes of Health (NIH) Director Harold Varmus's proposal to create an online electronic archive for biomedical research data sparked intense debate within the scholarly community over the best directions for the evolution of scientific publishing (see *Science*, 9 July 1999, p. 197). The NIH proposal elicited many strong reactions, both supportive and skeptical (see the online dEbate at www.sciencemag.org/cgi/eletters/285/5425/197#top). In the archive's final form, participating journals were invited to contribute the contents of their peer-reviewed publications across all the life sciences for access on an open archive. The NIH site (www.pubmedcentral.nih.gov), expected to be launched soon, will have content from three society-owned journals, accessible 4 to 7 weeks after dissemination to subscribers, and several new electronic journals. It will also include a way to post reports that have not been peer reviewed (called ePubMedExpress) but have been screened by certified, but still unknown, volunteer groups. Readers should be aware that alternative proposals to access the literature even more usefully are now proliferating.

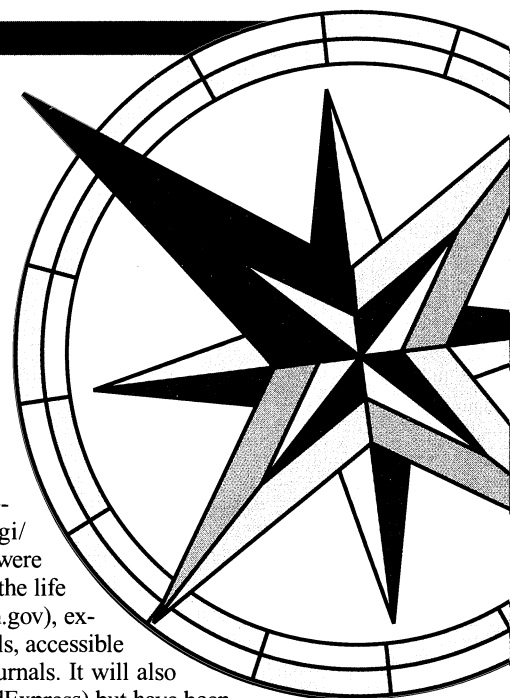
PubSCIENCE (<http://pubsci.osti.gov/index.html>), from the U.S. Department of Energy, began in October 1999 to facilitate access to peer-reviewed literature in the physical sciences and other energy-related disciplines. Users searching a large database of recent literature can be linked to originating journals, with final access being dependent on subscriber status. In November 1999, a cooperative agreement was reached between leading commercial publishers and two scientific societies (the American Association for the Advancement of Science and the American Institute of Physics) to give subscribers access to more than 3 million full-length electronic documents across thousands of journals, including the latest issues without delay. An estimated half million new articles will be added annually. Crossref (www.crossref.org) will be run by a not-for-profit independent company using Digital Object Identifier (DOI) technology to link searchable metadata to the journal content on the publishers' sites. In December 1999, the *British Medical Journal* opened a Web site explicitly devoted to "completed" studies, regardless of peer review status, to which research results from studies in clinical medicine and health can be posted before, during, or after peer review to "allow researchers to share their findings in full, for free, and as soon as their studies are complete." Authors may revise as often as they like and may also submit their work for peer review while it is posted. A listing of 24 other journals willing to consider these preposted papers can be found at the site (<http://clinmed.netprints.org/>). Eventually, the *British Medical Journal* aspires to become [like the Los Alamos ePrint archive (<http://xxx.lanl.gov>)] a direct submittal route to these and other journals willing to take preposts.

Finally, but almost certainly not last, the Current Science Group, a for-profit commercial science publisher and one of the participants in PubMed Central, has announced BioMed Central (www.biomedcentral.com) to "give researchers the tools they need to publish their data quickly and easily on the web," including ways to submit papers for peer review with online Web-based technology. Their services are intended for the small research communities who are unable to start or maintain their own niche journals. The European scientific community, led by the European Molecular Biology Organization, have a PubMed Central-style enterprise under active discussion (see R. Koenig, *Science* 28 January 2000, p. 563).

As we stated 6 months ago, *Science* actively desires changes that would benefit scientific publishing. So far, we remain unconvinced that the technological expediency of public preprint sharing before rigorous review is desired by our readers, who are already overburdened with information. For now, we remain committed to the peer-review filter. Clearly, we are in a time of immense change with regard to electronic communications. The number of online journals has grown from 100 to 10,000 in the past 5 years. Any top-down attempt to polarize the community as researchers search for what works for them will be destructive in the long run. Although all wanna-be movers are "for science" (and apple pie), no one yet knows the right answer. The prospect of finding the ideal solution to satisfy all publishers, disciplines, societies, librarians, and, most important, researchers now seems remote, and many fundamental questions remain. Nevertheless, progress is being made, and the establishment of Crossref indicates that even the publishers are mobilized to be positive change agents.

In publishing as in other operations, there's still no such thing as a free lunch, but the information options are definitely increasing. Have you seen any yet you like?

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