
Casting the Net

Caplan, Priscilla. "You Can't Get There From Here: E-prints and the Library." The Public-Access Computer Systems Review 5, no. 1 (1994): 20-24. To retrieve this file, send the following e-mail message to listserv@uhupvml.uh.edu: GET CAPLAN PRV5N1 F=MAIL. (The file is also available from the University of Houston Libraries' Gopher server: info.lib.uh.edu, port 70.)

A Useful Analogy

Are you sufficiently recovered from all that eggnog for a little post-holiday fantasy? Imagine it's a few weeks before Christmas, you've picked out the perfect tree and you ask the attendant at the tree lot what you owe. "Not a penny," he says, waving his ax. "Every tree here is free until Christmas, as long as you take it home yourself. On the other hand, if you want to wait until the day after Christmas, I'll deliver one right to your house for a hundred bucks even."

"A hundred dollars," you exclaim, "that's ridiculous! And what good is a Christmas tree the day after Christmas?" The tree man shrugs. "That's the way it is," he says. "Make up your mind." "Well," you say, "I guess I'll call for delivery around the end of the month. That is, if I have any cash left after Christmas."

The Preprint Culture

This may not be a perfect analogy with libraries and preprints, but it's too close for comfort. In several areas of research, most notably high-energy physics, preprints have for some time been the dominant means of communicating research results. Distribution of the preprint (a manuscript ready for submission to a journal or a conference) was inherently haphazard. Researchers had to be well plugged in to the distribution channels of their fields and proactive in seeking out preprints of interest. Nonetheless, the value of such timely information was so great that researchers organized the flow of information on their own, to the extent that D. Dallman et al. could claim "there has developed a veritable 'Preprint Culture' with its own social structure." [1]

Some libraries collect paper preprints. The Physics Research Library at Harvard University, for example, has a large collection of preprints that are fully cataloged in a special database in Harvard's online catalog. For the most part, however, libraries have tended to leave preprints to the researcher, while subscribing to the printed journals and proceedings that eventually publish them as articles. Of course, these publications are expensive and come out too late for the information to be really useful, hence the development of the preprint culture to begin with.

E-prints

In fact, the paper preprint is well on its way to extinction, supplanted in the information ecosystem by the electronic preprint, or e-print. David Mermin claims, "Nobody in the field sends out paper preprints anymore." [2] And for good reason. E-prints can be centralized on one or a small number of servers and made available to everyone instantly and simultaneously. For the author, the act of loading a single e-print replaces the photocopying and distribution of hundreds of copies of a preprint. And e-print servers can make comments by other researchers available alongside the original e-print, for rapid feedback and quality control.

The most basic method of e-print distribution is via bulletin boards (e-mail). In the most mature areas, the same e-prints are made available through multiple channels including e-mail, FTP, and Gopher or World-Wide Web servers. The process of receiving, revising, and replacing submissions has been automated by software developed by Paul Ginsparg of LANL, whose programs can extract bibliographic information and abstracts for automatic indexing from documents submitted in a standard format.

E-prints can be made available in multiple formats. The International Philosophical Preprint Exchange mounts e-prints in vanilla ASCII, several word processing formats, PostScript, various flavors of TeX, SGML, troff, and Mac binhex formats. In math and physics, variations on TeX (e.g., LaTeX, AMS-TeX, and Phyzxx) are standard. Often abstracts and readers' comments are provided in simple ASCII format and the e-print itself in at least two formats, ASCII and some type of TeX.

+ Page 22 +

Providing Access to E-prints

Clearly, the rise of the e-print has made it easier for libraries to provide access to these important research materials. However, to my knowledge, few libraries feel responsible for supporting e-prints or facilitating access to them. I put out a query last fall on PACS-L and CWIS-L asking what libraries were doing in regard to e-prints and what problems they were encountering. I received several helpful pointers to e-print servers, but not a single response from a library doing something.

The organized access that does exist seems to be provided by campus Gophers that maintain some sort of subject structure or that point to other Gophers that do. Using these Gophers is often (although not always) an ordeal. For example, one Gopher server I looked at recently has a menu of "Internet Resources by Subject." Selecting "Math, Natural Sciences" gave me a second menu with the item "Math, Computing." Selecting this in turn gave me a menu that included one item offering direct access to e-prints in algebraic geometry and a second item called "Mathematics (combined menu, Rice)." Selecting Rice gave me a menu with an entry for the American Mathematical Society's Gopher server. The AMS server showed an item for "Math preprints." One of the documents available under "Math preprints" was an article called "E-prints in Mathematics" that listed a number of different bulletin boards with math-related e-prints. As Dave Barry says, "I am not making this up."

The Library's Role

Many libraries sponsor courses in or offer some end-user support for common software for navigating the Internet, for formatting bibliographies from downloaded citations, and the like. I don't know of any library offering similar assistance in TeX, the language of e-prints. Nor do I know of any library archiving e-print collections, which is in fact a thorny area. On the one hand, there is certainly a need. Most of those running e-print services do not feel responsible for permanent archival storage of the e-prints. Although most e-prints do end up published in more traditional media, some do not, and some are published with changes. The e-print itself is as likely (in some areas, more likely) to be cited as its published version.

+ Page 23 +

On the other hand, there are problems peculiar to e-prints. Older e-prints are irregularly weeded, making the logistics of archiving difficult. More importantly, copyright generally passes from the author to the journal publisher on publication, and some publishers request that e-prints be made inaccessible at that time. This particular problem may not be solved until collections of e-prints replace publication in commercial, refereed journals altogether.

Call to Action

David Mermin thinks the hour is close at hand, at least for physicists. It has been said that members of the "preprint culture" are less wedded to publication in traditional journals for their academic awards than scholars in other disciplines, so one major barrier may be breachable. The researchers must still decide how to provide the function of peer review within this context. Librarians must determine how to guarantee bibliographic control, end-user support, permanent archives, and access to both current and archived material.

Still, if there were ever a chance to break the stranglehold of skyrocketing science serial subscription prices, this may be it. So with all our attention to e-journals and various other Internet resources, let's not leave e-prints abandoned by the electronic roadside, along with last year's Christmas trees.

Notes

1. D. Dallman, M. Draper, and S. Schwarz, "Electronic Pre-Publishing for World-wide Access: the Case of High Energy Physics" (Preprint submitted to Interlending and Document Supply, British Library Document Supply Centre, Boston Spa, UK).
2. David Mermin, "What's Wrong in Computopia?" *Physics Today* 45 (April 1992): 9.

About the Author

Priscilla Caplan, Assistant Director for Library Systems, University of Chicago Library, 1100 E. 57th Street, Chicago, IL 60637. Internet: p-caplan@uchicago.edu.

The Public-Access Computer Systems Review is an electronic journal that is distributed on the Internet and on other computer networks. There is no subscription fee.

To subscribe, send an e-mail message to listserv@uhupvml.uh.edu that says: SUBSCRIBE PACS-P First Name Last Name. PACS-P subscribers also receive three electronic newsletters: Current Cites, LITA Newsletter, and Public-Access Computer Systems News.

This article is Copyright (C) 1994 by Priscilla Caplan. All Rights Reserved.

The Public-Access Computer Systems Review is Copyright (C) 1994 by the University Libraries, University of Houston. All Rights Reserved.

Copying is permitted for noncommercial use by academic computer centers, computer conferences, individual scholars, and libraries. Libraries are authorized to add the journal to their collection, in electronic or printed form, at no charge. This message must appear on all copied material. All commercial use requires permission.
