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## Electronic Publishing Extends Reach Of Scientists And Of *The Scientist*

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In his essay on page 10 of this issue, Nobel laureate Joshua Lederberg describes the many potential benefits to the science community of electronic publishing. I certainly concur in advocating its use, as witness my recent decision to mount *The Scientist* on NSFnet and the Internet.

Originally planned primarily to facilitate access to large mainframe computer programs and data files, NSFnet has evolved into a major communications network and a splendid means of disseminating the valuable information our publication presents.

Last year I attended a conference on networking at which I had the pleasure of meeting Vinton Cerf, vice president of the Corporation for National Research Institutes and one of the gurus of networking. Cerf, in turn, introduced me to Corrine Carroll of the NSF Network Service Center in Washington, D.C., who eventually obtained all the necessary clearances for making *The Scientist* available on NSFnet.

It has been suggested that electronic availability might undermine *The Scientist*'s popularity as a print publication. Although some readers on a tight budget may very well

switch to the electronic version in order to avoid the annual subscription fee, I don't foresee that happening.

At present, only text is included on NSFnet; photographs and other graphics, cartoons, crossword puzzles, display and classified advertising—that is, all of the other valuable components responsible, along with the text, for the publication's increasing acceptance—are omitted.

So why have we gone electronic? It seems to me that *The Scientist* online serves a different function. First, it overcomes the inherent delay in using the postal system. This may be insignificant to many readers, but it might be of real value to those, including science journalists, who can never receive their information early enough. The significance is even higher for scientists overseas, where the delays and cost of postage are much greater. While our European colleagues may have to pay local communication charges to use the Internet, they can access the file once and then redistribute the information locally over their own internal networks.

In order to access *The Scientist* electronically, a PC and modem are required. Transfer of files is quite

rapid. There are two basic modes of access. Either you can transfer the entire file of each issue into your local PC (using file transfer protocol, or "ftp"), or you can request that the NSF info server send one or more issues to your Internet mailbox. In the former case, you are on-line only as long as it takes to download the contents of each issue.

Once you receive an issue, you can browse the file as you would any other ASCII text—scanning the contents page and then skipping to the full text of each article.

Even if you are not a hacker and do not spend a lot of your time at the console, you might consider using this facility as a simple method for

forwarding electronic copies of articles to interested colleagues. Among other virtues, this eliminates a trip to the copying machine and the delay in using the mail. You could send a fax, but that isn't very convenient unless you can transmit directly from your PC.

In any case, regular readers of *The Scientist* should feel free to post these files onto their bulletin boards.

Any reader who wishes to comment directly concerning material published in *The Scientist*—or on our new experiment in electronic publishing—can contact me, via Bitnet, at [garfield@aurora.cis.upenn.edu](mailto:garfield@aurora.cis.upenn.edu); or, via CompuServe, at [70550.130@compuserve.com](mailto:70550.130@compuserve.com).