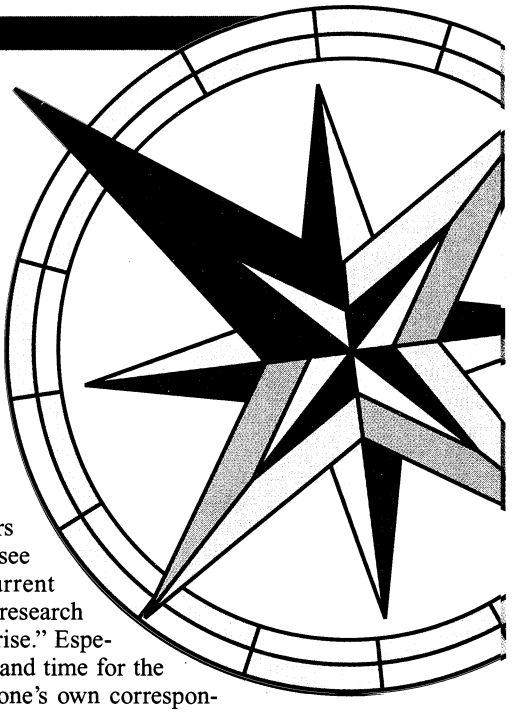

Too Much of A Good Thing?

Floyd E. Bloom

As a responsible editor, the views of our readers—when we can get them—offer invaluable feedback on our content's quality and accuracy as well as support for or dissent from our selections. Like all good scientists, we must also recall that skepticism is a virtue when we see readers react skeptically to our editorials. Thus, a reader who resonated far more positively with e-hullabaloo than with our newest electronic tools for scholars drew serious interest. Professor Hans Kende of Michigan State University (see http://www.sciencemag.org/cgi/content/full/287/5453/591b) views the current "tsunami" of online scientific tools as a potential "diversion from productive research and scholarly activities [with] serious consequences for the scientific enterprise." Especially bothersome to him were computer-based operations "that save money and time for the institution but add to the work load of the scientist" (such as maintaining one's own correspondence and receiving lengthy items for review electronically that then require the user to print them out for examination). Presumably, this category of concern includes enlarging one's digital tool kit in order to submit *Science* papers electronically so that editors and reviewers can more quickly complete the peer-review process while reducing mailing costs.

According to Bill Henderson, editor of "Minutes of the Lead Pencil Club" on the Hotwired Web site (subtitled "Pulling the Plug on the Electronic Revolution"): "Each time you give a machine a job to do you can do yourself, you give away a part of yourself..." He goes on to say, "every time you remove a technology from your life, you discover a gift" (see http://hotwired.lycos.com/braintennis/97/04/index0a.html). Clearly, Kende is not alone in his view that excessive reverence for the online-only world of scholarly communication anticipates a utopian future of information access that the majority of our readers may not yet be positioned, mentally or technologically, to embrace.

"[P]owerful new technology is on the way..."

Indeed, even some of our editors share the cynical view of doing it by computer. Going through the steps to install, learn, and operate new software may not just make the task take longer; the need for new software may add the frustration of dreaded computer crashes with loss of data and end up leaving the scholar less time to spend pondering data and reviews. And significant portions of the scientific community do not yet have personal 24/7 access to the Internet, the speediest computers, or color monitors or printers.

To all our readers who may not be able to see all our newest bells and whistles, we hear you. *Science* vows to keep all our readers in the loop. But we also vow to keep working to develop tools that will not only allow you to do your jobs as scientists better, but will help keep us moving toward that optimistic future that many here anticipate. Unquestionably, powerful new technology is on the way, and what we have now is extremely useful, starting with the observation by Tim Barkow, an editor at *Wired*, that "word processors [have] put the power of Gutenberg in the hands of the people."

To all those who dislike allowing the machine to take over scholarly functions, here's one author-editor who never wants to format another bibliography and whose heart skips a beat when more powerful and intelligent search engines scan the critical literature ever more meaningfully. E-mail can be, and often is, wearisome. However, compared to the intrusive ringing of the telephone by unknown callers (who then immediately abandon their phone-answering to assistants with no knowledge as to why they called you), e-mail wins every time. When the technology of digital display devices makes its next leap forward, those who opt for the new gadgets may read their texts as easily as today's papers and textbooks in virtual reality goggles or hand-held monitors no thicker than this issue of *Science*.

In *Faster: The Acceleration of Just About Everything* (Pantheon Books, 1999), futurist James Gleick notes how the technology we now have has conditioned us to expect instant results in all of our social, commercial, and intellectual activities. The technology *Science* seeks for our readers and authors is meant to organize information into wisdom, reveal important puzzles to solve, and draw new insights creatively. Seek with us.