

Can You Imagine That?

Progress in Communication in Medicine

WE see it almost daily, with a pace so rapid and regular that we become immune to it and it no longer surprises us. Well, maybe not the first time seeing someone walk through an airport speaking as if to the air with a blue-lit device strapped to an ear. As I begin my tenure as Editor-in-Chief of ANESTHESIOLOGY, I want to share my perspectives on the vision and legacy of my predecessor, Mike Todd, M.D. (Department of Anesthesiology, The University of Iowa, Iowa City, Iowa), and how ANESTHESIOLOGY may change in the coming years.

Ten years ago, when Mike started as Editor-in-Chief, we lived primarily in a print world. Newspaper readership was nearly 50% greater than now, computers were used primarily for word processing, and rapid communication was achieved more commonly by fax than by e-mail. Postage represented a large portion of the ANESTHESIOLOGY office expenses, the review process included a 7- to 10-day delay due to communication by mail, and the date subscribers received the journal varied by days within the United States and weeks or even months outside the United States. Hundreds of thousands of dollars were spent yearly to assemble, index, print, and ship the hefty issue of abstracts for the Annual Meeting of the American Society of Anesthesiologists, and searching this issue was a tedious and often ineffective process. Reviewers were largely restricted to the United States, and more than 90% of the members of the Editorial Board were American.

Of course, all of that is changed now, with nearly every aspect of reviewing, publishing, and, to an increasing extent, reading occurring *via* electronic media. In the world of medical publishing, ANESTHESIOLOGY under Mike Todd's direction has been an innovative leader in this transition. He built a Web-based review process well before commercial products for this purpose became readily available. ANESTHESIOLOGY first became available on-line through a site at The University of Iowa (Dr. Todd announced the opening of this site in his inaugural editorial in 1996),¹ and many parts of the Web site remain customized for us because they still reside there, under the direction of Webmaster Tom Smith.

Two years ago, the National Institutes of Health published a policy stating that research that had been supported by this government-funded agency should be made available at no cost to the public within 6 months of publication. As of early 2006, less than 4% of biomedical journals have complied with this policy.* Not only is

ANESTHESIOLOGY one of them, it was one of the first to allow open and free access to all content 6 months after publication. Giving away product without cost does not fit most business models, and the costs of peer review and publication approach \$500 per published article. ANESTHESIOLOGY moved forward aggressively nonetheless, and the results have been incredibly positive. Subscriptions and advertising revenue did not shrink—they grew. More importantly, traffic to the ANESTHESIOLOGY Web site and full-article views have led the field. Our site was number one in this regard out of nearly 300 journals published by Lippincott Williams & Wilkins in 2006. No doubt this reflects in part the comfort most anesthesiologists have with technology, but certainly the rapid application of a vision for open access is the primary factor for this tremendous success.

As important as open access to new information is the ability to search our history. It is often said that the science of medicine begins in 1965, because material before that is not included in Medline for Web-based searching. Similarly, most journals have only the past decade of their publications available for viewing and downloading. In the case of ANESTHESIOLOGY, only articles from 1995 forward are currently available. One of Mike Todd's goals was to get *all* of the ANESTHESIOLOGY content available for searching, viewing, and downloading on the Web. Thanks in large part to his efforts, and the shipping of journals from The University of Iowa to the publisher, the coming year will see the completion of an archiving project and availability of ANESTHESIOLOGY from volume 1, issue 1 in 1940 to the current issue on the Journal's Web site.

So where do we go from here? Two trends will most likely continue. Connectivity to the Web will expand to all areas of our personal, academic, and clinical lives. This will be fueled by nearly universal, cheap or free, high-bandwidth wireless access, cheap technology that connects nearly all electronic devices to the Web, and increasing portability and miniaturization of high-capacity processors. Medical records, physiologic monitors, practice guidelines, current research. All available everywhere. (Well, maybe not on your toaster oven, but it may well be connected to the Web.)

The second trend may appear less evident but was discussed 10 yr ago by my predecessors: making information relevant to the individual.^{1,2} The remarkable commercial success of Google (Google Inc., Mountain View, CA) demonstrates the need to rapidly identify relevant information from the exponentially increasing volume that is accessible. My vision for ANESTHESIOLOGY is that we will not be carried along with these trends, but

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* National Institutes of Health: Report on the NIH Public Access Policy. Available at: publicaccess.nih.gov/Final_Report_20060201.pdf. Accessed October 10, 2006.

lead their application to our specialty, as we have since 1940. RSS feeds. Web enhancements. Podcasts. Research into new approaches to peer-reviewed publication in a world of free and open access. Providing tools to rapidly find information relevant to state-of-the-art research and to clinical practice. And most importantly, striving to show relevance to researchers, residents in training, clinicians, and, increasingly, to patients themselves.

My parents recently sent me my kindergarten report card. It was gratifying to read that I was not assessed as a mouth breather. But it also brought back memories that most of us share of the freshness of new beginnings. The first day of school. Bright and sunny crisp fall days. Sharp new pencils. My box today is full of sharp pencils of many varieties. ANESTHESIOLOGY'S Editorial Board is chock full of the world's preeminent laboratory and clinical scientists, including new additions of the 2005 American Society of Anesthesiologists Rovenstein Awardee, Mark A. Warner, M.D. (Department of Anesthesiology, Mayo Clinic, Rochester, Minnesota), and 2005 Excellence in Research Awardee, David S. Warner, M.D. (Department of Anesthesiology, Duke University Medical Center, Durham, North Carolina). The use of the word *world* in the previous sentence is deliberate. A

majority of manuscripts submitted to and published in ANESTHESIOLOGY come from outside the United States, and this international flavor is reflected in our Editorial Board.

In the 1961 Tony Award-winning musical, *Carnival*, a young woman from a small village in the south of France joins a traveling circus heading to the big time. In the song "Mira," she describes her journey with a sense of amazement. "I came on two busses and a train. Can you imagine that?" I find the change in the electronic world in general and in ANESTHESIOLOGY in particular to be no less amazing. But she goes on to describe the warm, familiar world of her village. "Can you imagine that? Everybody knew my name." We are a community of trainees, clinicians, and scientists, and ANESTHESIOLOGY will strive to remain familiar and relevant to this big family.

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References

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