

EDITOR

Larry W. White, DDS, MSD

SENIOR EDITOR

Eugene L. Gottlieb, DDS

ASSOCIATE EDITORS

Charles J. Burstone, DDS, MS

Melvin Mayerson, DDS, MSD

Homer W. Phillips, DDS

John J. Sheridan, DDS, MSD

Peter M. Sinclair, DDS, MSD

BOOK EDITOR

Robert G. Keim, DDS

EDITOR, SPANISH EDITION

José Carrière, DDS, MD

CONTRIBUTING EDITORS

R.G. Alexander, DDS, MSD

Thomas D. Creekmore, DDS

Gayle Glenn, DDS, MSD

Warren Hamula, DDS, MSD

James J. Hilgers, DDS, MS

Howard D. Iba, DDS, MS

Richard P. McLaughlin, DDS

James A. McNamara, DDS, PhD

Thomas F. Mulligan, DDS, MSD

Robert M. Rubin, DMD

Thomas M. Stark, DDS, MSD

Dr. John C. Bennett (England)

Dr. Carlo Bonapace (Italy)

Dr. Jorge Fastlicht (Mexico)

Dr. Angelos Metaxas (Canada)

Dr. Georges L.S. Skinazi (France)

Dr. Ane Ten Hoeve (Netherlands)

Dr. Bjorn Zachrisson (Norway)

MANAGING EDITOR

David S. Vogels III

BUSINESS MANAGER

Lynn M. Bollinger

CIRCULATION MANAGER

Carol S. Varsos

COMMUNICATIONS MANAGER

Denise Skeels Harford

The material in each issue of JCO is protected by copyright. JCO has been registered with the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923. Permission is given for the copying of articles for personal or educational use, provided the copier pays the per-copy fee of 5 cents per page directly to the Center. This permission does not extend to any other kind of copying, including mass distribution, resale, advertising or promotion, or the creation of collective works. All rights reserved.

Address all other communications to *Journal of Clinical Orthodontics*, 1828 Pearl St., Boulder, CO 80302. Phone: (303) 443-1720; fax: (303) 443-9356. Subscription rates: INDIVIDUALS—U.S.A.: \$130 for one year, \$235 for two years; all other countries: \$165 for one year, \$290 for two years. INSTITUTIONS—U.S.A.: \$175 for one year, \$305 for two years; all other countries: \$215 for one year, \$385 for two years. STUDENTS—U.S.A.: \$65 for one year. SINGLE COPY—\$12 U.S.A.; \$14 all other countries. All orders must be accompanied by payment in full, in U.S. Funds drawn on a major U.S. bank only.

THE EDITOR'S CORNER

Electronic Stagecoaches

When a new technology arrives, hardly anyone accurately forecasts how or in what forms it will ultimately benefit us. This is usually because people view the promise of anything new through the prism of past experience, which prevents them from seeing the true potential of new instruments and techniques.

For instance, when pagers became popular with physicians, nurses, and business people, no one in the industry foresaw that one of the greatest growth opportunities would be with restaurants, who would use pagers to advise waiting patrons that their tables were ready and that they could return from their mall shopping to be seated. When television was in its infancy, just about everyone recognized its potential for offering entertainment, but most of the serious pundits also believed it would usher in a new era of education. That this never happened may be due to a fundamental misunderstanding of how the medium works. Nevertheless, most attempts to use television as an educational tool have been little more than extensions of traditional methods of classroom teaching and, when viewed on a TV screen, have all the excitement of watching paint dry.

Currently, the Internet has captured the attention of computer users, investors, and entrepreneurs. There is little doubt that this new extension of computer technology holds vast potential for altering the ways things are done, but I am unconvinced that anyone has yet foreseen how people will ultimately use it.

Very few companies or individuals are finding new customers on the Internet; in fact, most have lost money. The exceptions, such as the computer company, Dell Corporation, have discovered that a direct link to the consumer bypasses time-consuming and expensive middlemen. The Web site of 1-800-Flowers (www.1800flowers.com) is successful because it provides customers an easier way to buy flowers than through a florist. On-line customers can see images of arrangements—which is not possible when ordering by phone. Unfortunately, however, most of the attempts to sell through the Internet thus

far have been unimaginative repetitions of yesterday's marketing techniques. Before the ultimate direction becomes clear, I imagine there will be quite a bit of road kill on the information highway.

It reminds me of the first rail cars produced for the Hudson and Mohawk Railroad. A cursory glance shows that they looked quite a bit like the stagecoaches they would ultimately replace. When the railroads told coach makers they needed some passenger vehicles, the builders made a few wheel adjustments, but generally continued making the coaches as they had always done.

Likewise, professional publications currently on the Internet seem to be little more than paper and ink in electronic form—without the portability and the clarity of illustrations offered by conventional books and journals. One of the biggest potential advantages of on-line publishing—that of providing instantaneous updates to knowledge and techniques—has yet to be fully realized in the electronic medium. Another possibility that on-line dental publishers haven't exploited is hyperlinking an article text directly to its references. Rather than simply displaying a citation, an interactive publication could immediately call up the entire article or pertinent features of the source document. A product reference could be linked to the site of the vendor, which could illustrate additional uses, prices, quantity discounts, electronic order forms, and so on. One further aid to Internet readers might be to provide links to authors' e-mail addresses, so that any criticisms, complaints, or queries could be forwarded instantaneously, without the months of back-and-forth correspondence common in print journalism.

To my knowledge, no one forecast that the Internet would become a forum through which patients could solicit second opinions about diagnoses and therapies, but apparently that is happening. A friend wrote the other day about a patient who accessed his Web page to ask about a diagnosis, treatment plan, and fee presented by another orthodontist. Caution and unusual diplomacy will be needed in answering such queries in a way that will avoid misleading people and

subjecting colleagues to unreasonable second-guessing from patients. As patients take more responsibility for their own health-care decisions, the profession needs to rehearse how it will handle such delicate communications.

Of course, there is a downside to this Internet business. The cost of getting connected to the World Wide Web is not insignificant—the computer, software, modem, monthly server fee, additional phone line, and time required to learn new skills and jargon can add up. We still need better software to enable us to transfer text and images quickly and efficiently from one computer platform to another. Right now, it looks as though the Java language created by Sun Microsystems will be the vehicle that makes this possible. If past experience with new technologies is any guide, the price of communicating on the Internet will soon drop dramatically, and useful programs will expand exponentially.

Lack of band width (the speed at which Web connections transmit) also continues to handicap entrepreneurs and users. Even with telephone modem speeds of 28.8 million baud and higher, the download time for graphics is painfully long and unrealistic. However, ISDNs (Internet service digital networks), cable companies, and digital satellites promise to further reduce transmission times by factors of four to 10.

Transmission of clear radiographic and photographic images remains a major problem for those who want to share useful orthodontic information. Once this barrier is removed, our patients will be able to benefit from more accurate diagnoses, more efficient treatment plans, and reduced costs. In addition, the world-wide exchange of ideas and information will surely result in an unprecedented explosion of orthodontic innovation over the next five years.

Orthodontists have a long way to go before they fully realize the promises of the Information Age. New technologies have always proven most effective when combined with new models that take full advantage of their capabilities. Failure to acknowledge this principle will result in orthodontic systems as ludicrous as stagecoaches on rails.

LWW