

THE EDITOR'S CORNER

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Keeping Up with Change

It's a well-known fact that history is not so much a steady stream as a paroxysmal flow, with long periods of relatively quiescent progress interrupted by brief periods of tumultuous change. These short upheavals tend to change the way things are and are done forever. For example, prehistory dragged on for eons before the advent of agriculture made stable civilization possible. The invention of iron alloys brought an abrupt end to the Bronze Age. The creative explosion of the Age of Enlightenment brought us everything from scientifically based medicines to the internal combustion engine. The world has not been the same since.

The history of orthodontics is no less paroxysmal. Hippocrates (c. 400 BCE) was the first to write about malocclusion. Celsus (c. 25 BCE) first suggested the use of finger pressure to move teeth. That was about it for orthodontic appliances until the mid-18th century, when Pierre Fauchard, often called the father of modern dentistry, described a "bandelette" that functioned much the same as a contemporary expansion arch. The contributions of Norman Kingsley to cleft-palate care, Calvin Case's introduction of intraoral elastics and resilient wire therapy, and, of course, Edward H. Angle's development of the edgewise appliance and systematization of orthodontics are a few of the major, irreversible changes that occurred during a relatively brief period around the turn of the last century. In fact, most of what could be discovered or invented relative to modern orthodontic biomechanics was established at that time. Even the biomechanical hallmarks of today's orthodontic practice--preprogrammed appliances, superelastic archwires, and direct bonding of brackets--were at least suggested then, even if their material development took until the latter half of the 20th century.

We are certainly living in another such era of change today. As in the Age of Enlightenment, this one is driven by technology. The major engine of change now, of course, is the computer, which has become an integral part of most everyone's life, from the most esoteric scientist hacking away at a work station in a university research laboratory to a grade-school student surfing the Web from a home desktop for MP3s and Britney Spears fan-club sites.

Orthodontists were relatively quick to jump on the computer bandwagon with the introduction of office management systems in the late '70s and early '80s. Diagnostic and cephalometric programs followed soon after. It is now a rare office that does not employ some form of computer technology for management or diagnosis. More recently, the engine of change has been running in high gear. Three-dimensional "virtual models" will probably make plaster models obsolete in the not-too-distant future. Affordable, in-office computerized tomography units threaten to replace the old two-dimensional ceph. The application of CAD-CAM technology to orthodontics, while still in its infancy, has clearly shown that "braceless" orthodontics is at least possible. The wire-bender of the future may have more contact with computer cables than with wires of the nickel titanium or stainless steel variety.

To help you keep up with these fast-moving changes, JCO is adding two new editors this month. Both of these gentlemen have extensive experience in the application of computer technology to the practice of orthodontics, and both are well known to their "wired" colleagues. Our new Technology Editor is Dr. James Mah. An Assistant Professor of Orthodontics at the University of Southern

California, he obtained his dental degree and his certificate in orthodontics from the University of Alberta. He then completed a doctorate in biochemistry at Harvard University and post-doctoral work at Children' s Hospital in Boston. In 1998, he moved to USC, where he is the Director of the Craniofacial Virtual Reality Laboratory. Dr. Mah was recently awarded an AAO Foundation Corporate Center Award for this lab, in which virtual three-dimensional craniofacial patients are created for simulations of diagnosis and treatment planning. He has published extensively on topics related to computer technology and is a regular on the world lecture circuit. Dr. Mah' s work in the area of three-dimensional facial imaging is regarded as "the cutting edge" of computerized orthodontics--which, incidentally, will be the title of his quarterly column for JCO.

Our new Online Editor is Dr. Ronald Redmond. Dr. Redmond holds a bachelor' s degree from the University of California, Riverside, a DDS from the University of the Pacific School of Dentistry, and a master' s degree in orthodontics from the University of Southern California. He is also a familiar figure on the lecture circuit, speaking on the use of computer systems and networks in the management of orthodontic practices. Having incorporated computers into his own practice in the late ' 70s, Dr. Redmond has been involved in this field almost as long as it has existed. His six offices, which he operates with his two sons, William J. Redmond and M. John Redmond, are located in two states (California and Washington), and he has been a pioneer in the use of the Internet to coordinate multiple offices in widely separated areas.

We believe the addition of these two computer- age pathfinders to our editorial staff will uniquely position JCO to address the challenges of the period of tumultuous change we are now facing in orthodontics. I' m sure our readers will keep their mailboxes full of comments, suggestions, and queries. This should prove to be a lot of fun for all of us. •