Traveling the information highway

Greeting the new century

with Bob Alden

his January issue welcomes in the new year, a new decade, a new century and a new millennium. Assuming our systems — most of which are computer-based — survive the Y2K bug, you are reading this article in your usual way, online or in paper form.

Looking back over the previous annual sets of columns, I see a partial record of IEEE's progress in using the information highway in increasingly sophisticated ways.

My first column, published in November/December 1992, was entitled "E-mail is making its way to the IEEE." My January 1995 title was "The IEEE World-Wide Web comes to life." Two other headlines also catch my eye: January 1998, "Doing IEEE business electronically," and January 1999, "A plan for IEEE electronic services." The January issue is where I try to think about where we are heading. This one is in a similar vein. So here we go...

Information about IEEE's information highway is available electronically. To find out what is available, view the Web page at "www.ieee.org/eleccomm/" or send a message to "fileserver@ieee.org" and place the file name "info.email" by itself at the start of the first line in the message.

During the recent Sections Congress, 1999 IEEE President Ken Laker gave a remarkable plenary session entitled "IEEE of the 21st Century," which you can read online at "http://www.ieee.org/organiza-

tions/corporate/ken.html". He pointed to two major technical evolutions that created and changed the IEEE as we know it today—the founding of the AIEE in 1884 and of the IRE in 1912, and their merger in 1963. He suggested that the emergence of Web delivery of information is causing the IEEE to undergo its next fundamental change. I could not agree more!

If Ken's view is correct, we need to think about the implications of these changes — for the survival of the IEEE in an increasingly competitive environment — and for meeting our needs as members. These two concerns are not the same.

The IEEE could survive as a provider of services for its customers — a Web-based "ieee.com". However, I prefer to focus on meeting the needs of IEEE members — a Web-based "ieee.org" — and that's where you and I need to step up and demand services that we need because they are too slow in coming. I say this because, although I am proud of what we have done, I am sensitive to the concerns I continue to hear and of the opportunities we are missing.

At that Sections Congress, I was asked to be the facilitator of a caucus on electronic communications. We brainstormed, prioritized, selected sets of related issues and developed recommendations. There was a clear consensus that the single most important current issue was to clean up the IEEE membership database.

Is this an electronic communications issue? Yes, because the database is the foundation of all electronic services and the delivery of those services. That group of section

chairs brought their experience of responding to member needs and concerns — they were clear — there are still too many mix-ups in member service delivery even though the

first five of the previous Sections Congress recommendations (all on electronic communications) have been implemented.

FIRST MILLENNIUM CHALLENGE. Doing business electronically has several implications for our database:

- ◆ To be effective, the IEEE must have one (and only one) database. Right now, there are still many different databases being used by IEEE societies and other entities.
- A single database, staff maintained, must be accessible to all IEEE members and entities for use and updating, with the appropriate level of access control (who can do what).

This is my first challenge for the IEEE directors and society presidents in the new millennium: fix our database (IEEE-wide).

SECOND MILLENNIUM CHALLENGE. Doing business electronically in 2000 means providing new services beyond putting what was on paper onto a desktop.

- ◆ The Web provides a new way to deliver technical information. Web-based technical papers could be much shorter and more meaningful than the paper version, using links to existing papers for background and comparisons and the like (that was the topic in my September 1994 column!).
- ◆ The Web provides a conduit for members to access more than IEEE publications engineering tables, procedures, examples

and so on — of the technical activities that we do every day in our professional lives. It would be a real convenience for IEEE members to find virtually everything they need via the IEEE Web site.

This is my second challenge for the IEEE directors and society presidents in the new millennium: provide new Webbased services (be bold — this is our

technology — ensure that our services are the best).

YOUR INPUT. Using the Web and that centralized database has a danger that IEEE activities can become more centralized and staff driven. While we need a competent professional staff, we also need to consider our history—somewhat more than the last century—and the strength and diversity that our members and volunteers have provided.

As we reposition the IEEE to meet Ken Laker's challenge of Web delivery, we need (I suggest) a resurgence of member input to provide the impetus for developing the kind of services that members need — and that the IEEE needs to prosper and continue to be the leading organization in electrotechnology into the next millennium.

Why not communicate your needs and concerns to your regional director, divisional director, society president, or volunteer to help develop those new services. Let's work together and really use the IEEE Web for our benefit in this new century.

Robert T.H. (Bob) Alden is the IEEE Electronic Communications Advisor, and a former IEEE vice president. In his other life, he is the past and founding director of the Power Research Laboratory at McMaster University in Hamilton, Ont., Canada. He welcomes your input via email at "r.alden@ieee.org", his home page is "http://power.eng.mcmaster.ca/alden".