

INTRODUCTION

Q: What takes 117 telephone calls, 43 faxes, 79 voice mail messages, and 29 electronic mail messages?

A: This special issue on telecommunications.

Modern telecommunications technology has opened up an enormous vista of enhanced and accelerated communication at a distance. I won't join the chorus of daily editorials proclaiming the latest stage of the Information Age, except to say that the convergence of information processing and communication holds both promises and risks for people with disabilities—promises because the ability to substitute “brain” for “brawn” opens up greater prospects for complete integration than ever before, risks because the failure to guarantee full, built-in accessibility will make all the new telecommunications technology just another barrier. Thus, the design and implementation of this new technology places us at a crossroads.

What is the largest assistive technology program in the United States? It's the telephone relay service (TRS), the “deaf relay” service mandated by the ADA and now in place throughout the nation, costing more than \$200 million per year. Although most of the technology used in TRS is not leading edge, the opportunities for improvements are dramatic. The “Technology and Telephone Relay Service” article goes into great detail in identifying where TRS can apply advanced technology.

“Telecommunications for Deaf and Hard of Hearing Children” develops a related theme: no matter what the technology, people must learn to use it. This article describes an innovative program designed to teach children how to use TTYs and TRS.

Anyone who has ever wondered why it's hard to communicate between a TTY and a PC will appreciate “ITU-T Recommendation V.18.” It's a thorough discussion of the incompatibility problem (ASCII versus Baudot) as well as an international attempt to solve it, spearheaded by the author.

“Remote Reading for Visually Impaired People” and “Shared Resource Assistive Systems” both describe innovative ways for disabled consumers to take advantage of standard telecommunications services to achieve nonstandard results. They both indicate the potential for the Intelligent Network, with its ability to deliver customized telecommunications services.

How does industry address accessibility issues in designing products? “The Accessible Design Process: An AT&T Perspective” demystifies the process for us and reveals how AT&T incorporates universal design principles. Consumers should read it to understand how subtle and complex the development process is, and industry should read it to learn how it's done by a company that's arguably had the most impact on accessible telecommunications.

No mention of telecommunications is complete these days without a reference to Internet. This network of networks that connects millions of computers around the world is an effective tool for rehabilitation professionals and consumers. Its many resources are catalogued in “Exploring the Internet.”

Finally, how will we respond, as consumers, providers, and as a society? Consumer input and public policy have had a role in the development of all assistive technology, but nowhere have they been more crucial than in telecommunications. Two articles highlight the current situation: the first, “Public Policy/Legislative Trends,” and the last, “Consumers and Telecommunications.” These articles spell out where the community is coming from and how Washington is responding.

I hope that you will gain as much from reading this issue as I have from editing it. I think that it provides a view of the future, as well as a collection of interesting case studies of how technical developments and human needs interact. If you have any comments, please send them to me.

Jim Tobias, MA