

Capitol Conference Focuses on Technologies for Disabled People

Three days of activities brought to Washington many prominent disabled people, designers and manufacturers of devices for the disabled, and persons responsible for administering programs dealing with disabled individuals.

"The Capitol Conference on Technology and Handicapped People" focused attention on how these devices are designed, evaluated, and marketed and pointed to ways of improving the system. The conference opened 29 September with a special joint hearing before the U.S. Senate Committee on Labor and Human Resources and the U.S. House Committee on Science and Technology, Subcommittee on Science, Research, and Technology. The hearing was called to respond to the Office of Technology Assessment's (OTA) report, "Technology and Handicapped People."

Testimony was presented under the several subject areas of the OTA report, including research, development, and evaluation of technologies; financing; and consumer participation. One member of the consumer panel, Margaret C. Pfrommer, research associate and consumer advocate, Northwestern University Rehabilitation Engineering Center, and president, Illinois Congress of Organizations of the Physically Handicapped, called for inclusion of disabled persons in the design and evaluation process.

"... Professionals working with technical products and services must have contact with the population of persons with disabilities," said Pfrommer. "Ongoing feedback from the consumer can keep all activities on track and prevent waste. Better products and services are obtained when they are evaluated by consumers under their own life circumstances and on their own terrain."

James Renuk, a graduate research associate in John Eulenberg's Artificial Language Lab at Michigan State University, used a computer-based voice output communication aid (VOCA) to address the hearing. This was the first time that a voice-impaired person had given testimony in Congress using such a device. Eulenberg emphasized the importance of establishing an appropriate delivery sys-

tem, involving partnerships with industry. A customized device such as the one Eulenberg designed for Renuk can cost upwards of \$15,000 per system. Through coordination with industry prices can be dramatically reduced. He cited the recent introduction by Texas Instruments of "Vocaid," a battery-powered device with a limited vocabulary which sells for about \$150.

Oral O. Miller, representing the American Council of the Blind, told legislators that adapting technologies currently in existence to the needs of the disabled could save time and money. He gave as examples the wide use, by blind people, of cassette tape recorders, microcassettes, and the Apple II Plus computer which, for a relatively small amount of money, can be equipped to "talk."

Following the hearings, participants and the general public attended an exhibit, arranged by AAAS, of technologies for disabled people. Included among the displays were omnidirectional wheelchairs, a computerized voice synthesizer, reading machines, and new prosthetic devices.

Special guests at the conference were John Linvill, professor of integrated systems and a director, Center for Integrated Systems at Stanford University; Marjorie Linvill, president of the board of trustees, Sensory Aids Foundation; and Candace Linvill Berg, clinical psychologist, Permanente Medical Group. John Linvill developed the Optacon reading aid for the blind; Marjorie Linvill served as a "parental motivator"; and Candace Linvill Berg (their daughter) served as a principal blind experimenter with the Optacon program, using it throughout her college and graduate studies. In an after-dinner presentation each related her or his own experiences as the Optacon came to fruition.

On Thursday and Friday (30 September and 1 October), conference participants came together to focus their attention on realistic goals aimed at improving the development, evaluation, marketing, and financing of technologies for disabled people. After grouping lists of ideas into major areas of concern, each

individual wrote a personal action plan.

Among the individual action plans are those of an industry representative who will work to encourage other industries to become involved in the development of technologies for the disabled; the director of an organization which helps provide devices for disabled people who will go out to employers and explain to them how adaptations and aids could make it possible for them to hire more disabled workers; and a disabled scientist who will prepare a talk to deliver to local citizens' groups illustrating ways in which disabled people can more fully participate in a variety of activities.

At the final conference session Martha Ross Redden, director of the AAAS Project on the Handicapped in Science, thanked participants for the work they had accomplished during the 3 days and for their commitment to continuing that work through implementation of their personal action plans.

Cosponsors of the Capitol Conference on Technology and Handicapped People, along with the AAAS, were the Office of Technology Assessment; President's Committee on Employment of the Handicapped; Rehabilitation Engineering Center, University of Virginia; U.S. House Committee on Science and Technology, Subcommittee on Science, Research, and Technology, Doug Walgren (D-Pa.) chair; and U.S. Senate Committee on Labor and Human Resources, Orrin G. Hatch (R-Utah) chair.

For further information on the work of the Project, write to the Project on the Handicapped in Science, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036 or call 202-467-4497.

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Arctic Division Meeting

The annual meeting of the Arctic Division of AAAS, the "Alaska Science Conference," held in Fairbanks, 16-18 September, attracted more than 600 people. Nearly 300 papers were presented on topics ranging from pure mathematics to arctic sewer systems. Highlights included a Navy-sponsored symposium on "Human Performance in the Cold" and a North Slope Borough sponsored symposium on "Appropriate Energy Technology for Arctic Regions."