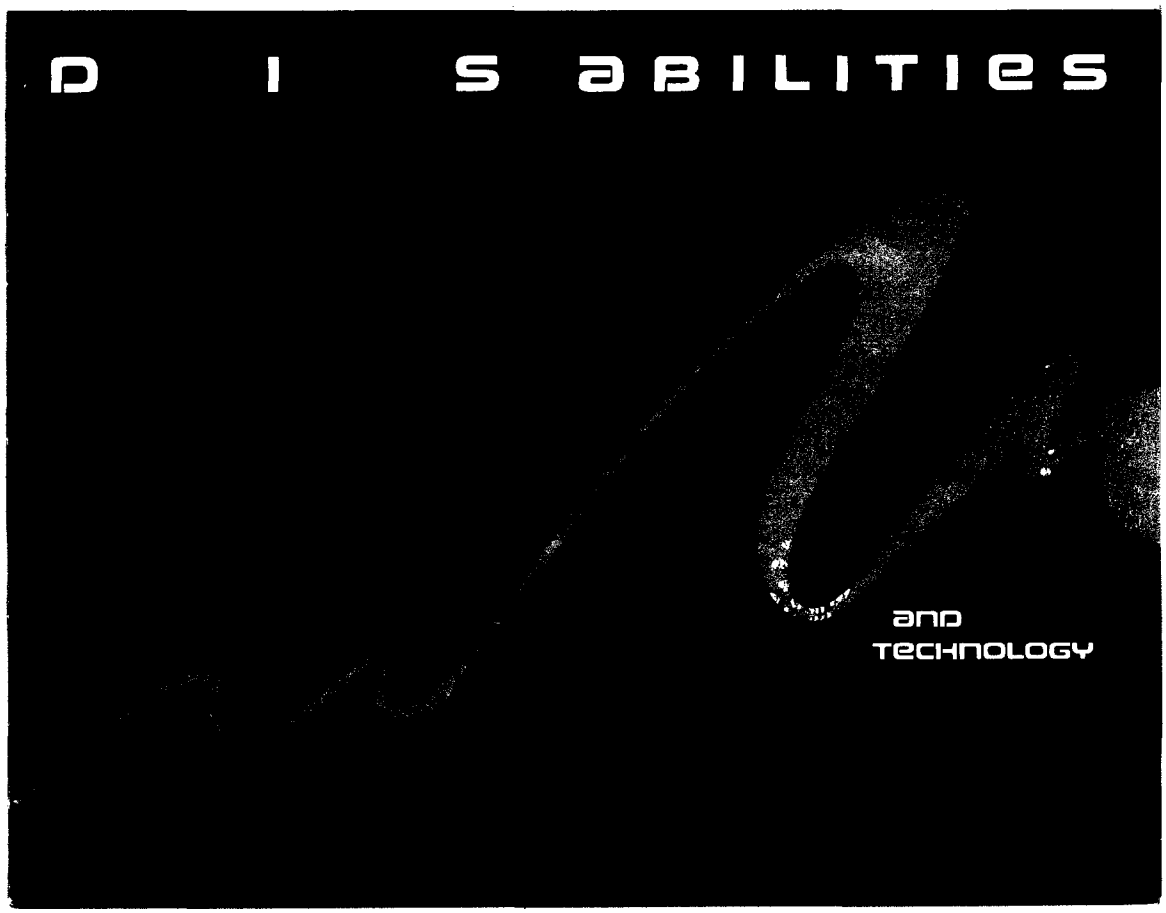
EXECUTIVE SUMMARY

Technology for People with Disabilities

State of Minnesota
June, 1986



REFERENCES—23

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FINDINGS

While technological devices and workplace adaptations can be very expensive, companies are finding that these costs are often far outweighed by the cost of long-term disability payments. In addition to savings in wages earned and lowered workers' compensation and unemployment compensation rates, new technological developments can also bring about significant cost savings by helping prevent the occurrence of disabling conditions; allowing people with disabilities to live in independent or semi-independent settings rather than in high-cost institutions; and providing the education and training necessary to enhance the employability of people with disabilities.

A significant gap exists between the possibilities offered by technological devices and processes and the realities of their applications or uses. Some restrictions are purely monetary, resulting in part from the high cost of many technological devices or adaptations relative to functional limitations. Others result from a lack of adequate, available information about technologies for those who could benefit from such knowledge. Still others result from gaps in the process of research and development, that broad area of activity in which needs are identified and products and processes that can meet those needs are developed. All three of these areas must be addressed if disabled Minnesotans are going to be able to fully avail themselves of and benefit from appropriate uses of technology.

A. Information Dissemination. Four activities must occur in order for accurate information to be disseminated to appropriate individuals: collection, dissemination, practical application, and training. We find, however, that the following is true in Minnesota:

1. There is no systematic effort to gather information about existing technologies and their applications or to disseminate it. What collection and dissemination is taking place is happening sporadically and with no consistency or overall coordination;

2. There is no site at which people with disabilities and the professionals and concerned others associated with them can have access to equipment in order to assess potentially appropriate uses or applications; and

3. Assistance in selecting and using appropriate devices and processes is not available to all persons with disabilities nor are such services available throughout the state. It is provided only to some in isolated, though excellent, situations.

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B. Funding. Financing technological devices and services is an essential prerequisite for their uses. However, current public and private policies and practices are not adequately meeting the funding needs of persons with disabilities, thereby inhibiting their ability to purchase needed devices and rehabilitation services. Specifically, the following problems exist:

1. State agency definitions of key terms, particularly "medical necessity" and "prevailing community standard," are unnecessarily restrictive and are therefore preventing or delaying full, appropriate uses of technology;

2. Public funding policies do not recognize rehabilitation engineering for conducting assessments needed to select appropriate equipment and provide training to ensure the full, proper, and safe use of that equipment, and the prior authorization procedure for payments is unnecessarily restrictive; and

3. The definitions of medical necessity used by private insurance carriers that insure the majority of families with children who are handicapped and adults with disabilities are even narrower and more restrictive than those used by public entities, and their policies, therefore, do not cover the technologies necessary to remove functional obstacles from the lives of people with disabilities.

C. Research and Development. Introducing new technologies into the lives of people with disabilities is a massive undertaking. Many variables must be considered such as: type and severity of disabling condition, range of specialized technology either currently being used or needing development as well as the systems and services needed for application. The federal government has a clear role in carrying out and supporting disability related research and development and setting national research priorities, but their distance from consumers and current funding limitations have diminished the effectiveness of efforts at this level. In many ways, states are in a more appropriate position to address the needs of people with disabilties. In Minnesota, there is at present no consistent effort to do so. Effective disability-related research and development is not taking place in Minnesota because:

1. No effort is underway to identify and document existing technologies and the unmet needs of persons with disabilities.

2. There is no mechanism to disseminate such information to producers and consumers and to encourage ongoing dialoques between them; and

3. Specialized applications for disabled persons are often expensive, but no incentives exist to encourage companies or individuals to develop and/or transfer new and existing technologies and technology uses for that purpose.

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12. A proposal should be developed for a Minnesota Center for Technology for Disabled People that would coordinate, support, and advance technology uses and applications for people with disabilities through implementation and training, information dissemination, technical services, research and development, and technology transfer.

FUTURE IMPLICATIONS

Advanced technology is widely available in general, but its transfer to the special, long-term needs of persons with disabilities has been slow, sporadic, and uneven. At the same time, the population of persons with disabilities is increasing. We are at a point where dramatically effective, practical applications could become reality and be made widely available and accessible. The degree to which this will occur depends on the intensity and effective coordination of information dissemination, funding, and public and private sector research and development efforts.

Implementing the recommendations outlined in this report would require some state appropriations, but many of these actions would not require direct expenditures. Others would use state funds to leverage additional dollars from the private sector. A biennial appropriation of $500,000 could bring about the establishment of a Center for Technology for People with Disabilities whose staff could spearhead and coordinate many of the actions which we have recommended.

We cannot afford to pass up the opportunity to utilize technology to its fullest potential in order to help people with disabilities fully participate in our society. Minnesota's economy has prospered from a strong base of technology intensive firms, an enduring entrepreneurial spirit, a tradition of cooperation, and an abiding concern for our fellow citizens. These same strengths give us the ability to lead the nation in the application of new technologies to the needs of people with disabilities and to focus on the abilities, rather than the disabilities, of those with functional limitations.

The next five to ten years will be crucial to the shape of the future. Action must be taken in the areas of information sharing, funding, and research and development within a carefully conceived strategy that is fully supported with adequate human and financial resources. The costs of doing so will be far outweighed by savings in productivity, economic growth, and human dignity. We can afford to do no less.

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RECOMMENDATIONS

Technology offers means to ameliorate the limitations posed by a variety of disabilities. Carefully guided action is required to ensure that appropriate devices and services are available to and accessible by Minnesotans with disabilities. The following recommendations provide the means to take such action and, given sufficient funding and staff support, could be implemented within a two-to-three-year time period.

1. An on going Advisory Board on Technology for People with Disabilities should be established.

2. A mechanism should be established to gather information on existing technology for persons with disabilities and to dispense it through central collection site.

3. A statewide media campaign should be developed to heighten public awareness of available technology-based products and services and their implications for persons with disabilities.

4. A sequential strategy should be developed to provide technology-related training to professionals in special education, rehabilitation, county case management, and other areas of caregiving, as well as families.

5. Public agencies, private insurance carriers, and Health Maintenance Organizations should be required to expand their definitions of medical necessity, revise their definitions of prevailing community standard, and provide extended disability insurance coverage.

6. Rule 47 should be revised so that it encourages, rather than prevents technological advances.

7. The Medicaid Professional Services Advisory Committee should be expanded to include a subcommittee of persons familiar with new technological devices and services to advise the Department of Human Services on appropriate technology matters.

8. A matching grant program should be enacted by the Legislature to encourage the use of public and private sector funds to support new program alternatives that promote the use of technologies by people with disabilities.

9. Minnesota's Developmental Disabilities Council should study Pennsylvania's Assistive Device Loan Program and evaluate the advisability of proposing a similar program in Minnesota.

10. Grants, tax credits, and other incentives should be established and/or modified to encourage the development, modification, and transfer of technologies to meet the needs of disabled persons and to assist consumers paying for needed devices and services.

11. Assistance should be provided to companies to identify and document needs and existing technologies in order to help them design products usable by and accessible to people with disabilities.

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INTRODUCTION

In recent years, there has been a tremendous acceleration in the rate of technological innovation, with new devices and processes being developed that can enhance the daily lives and activities of people with disabilities. An enormous range of technological devices is potentially available to help individuals function more fully in areas such as mobility, communication, and the negotiation and control of their environment. Technological advances are also applicable to educational and vocational programs. For persons with disabilities, the availability of assistive devices or technology-related services can mean the difference between employment or unemployment, independent or dependent living, and the ability or inability to participate in the normal, everyday affairs of a community. Action is needed to ensure that technological devices and services are available and accessible to people with disabilities.

DEFINITION AND INCIDENCE

A disability is anything that challenges the development or functioning of an individual, such as sensory, physical, mental, or emotional impairments. Accidents, disease, congenital defects, and aging are the primary causes of limitations to a person's ability to perform one or more important life functions. The limitations imposed by these conditions range from those easily overcome (e.g., wearing eyeglasses to improve visual acuity) to those for which compensation is more difficult or complicated (e.g., the mobility and routine functioning of a person who is quadriplegic).

According to United Nations estimates, more than 400 million people, or 10 percent of the world's population, are disabled. U.S. Census Bureau statistics indicate that there are about 35 million people in the United States who are disabled. In Minnesota, it has been estimated that 14.5 percent of all Minnesotans are limited in one or more functions of daily living as a result of a disability.

COSTS TO SOCIETY

The costs to society of failing to help persons with disabilities to live full productive lives are high. According to national estimates, between 50 and 80 percent of working-age people with disabilities are unemployed. The poverty level among persons with disabilities has increased to 70 percent of families whose heads of households are disabled and earning less than $10,000 per year, as compared to 60 percent in 1975. The resulting cost to society is estimated at $300 billion per year, or $25,000 to $35,000 in lost wages, lost economic growth, food stamps, and medical payments, as well as worker's compensation and unemployment insurance, for each of the 10 million unemployed people with disabilities in the U.S.

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