



DIRECTIONS

Technology in Special Education

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Introduction to Technology in Transition

Part 1

Sherrilyn K. Fisher & J. Emmett Gardner

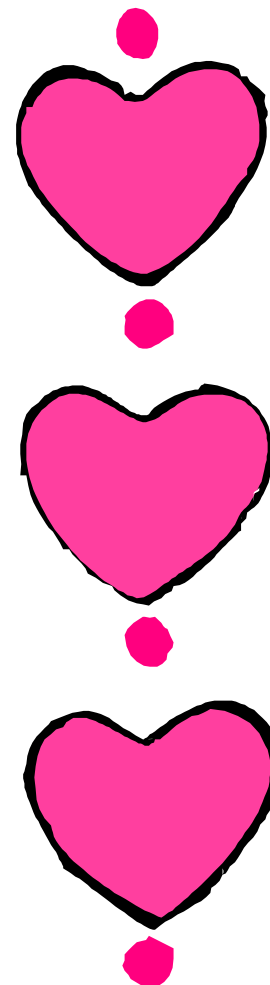
*Source: Career Development for Exceptional Individuals
The Council for Exceptional Children
Volume 22, Number 2, Fall 1999*

**Editors Note: Due to the length of this article, it has been split into several parts and will be featured for the next few months.*

Abstract. The recent changes in legislation concerning technology and transition have brought the two fields into national attention. New thinking by professionals, parents, and students about the application of technology is now required by the fact that (a) technology must be considered in every individualized education plan, (b) students are to receive services to enable them to be educated in the regular curriculum to the maximum extent possible, and (c) related services (including assistive technology) are to be considered as part of students' transition plans. This article explores an integrated approach to technology and transition in historical and current perspectives, and provides an introduction and philosophical base for the articles which follow in this special issue.

In 1997 when we first proposed this topical issue on technology and transition to the Board of the Division of Career Development and Transition (DCDT), we were met with enthusiasm about examining assistive and instructional technology and its impact on the transition process. After nearly two years of preparation, we remain excited about this issue of CDEI and are pleased with the end product. This issue represents the first group of authors to present ideas that correlate and integrate the fields of technology and transition. The writing comes at an optimum time—a juncture that roughly coincides with legislation requiring technology to be

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Family Center on Technology and Disability Update

We want to welcome the following new members to the Network:

Digit-Eyes, Blind Services Association

Mentor Parent Program, Western Pennsylvania

Council for Exceptional Children, State of Michigan chapter

Contact information for Network members can be found on the Family Center website at www.fctd.org/netorgst.htm. We are in the process of updating the network list of organizations to reflect the growing membership in the network.

The Family Center on Technology and Disability Network welcomes all of you, and hopes that you will find participation in the Network useful in providing services!

News....

The U.S. Department of Education has funded 40 Community Technology Centers (CTC) throughout the United States. This program was established to provide, through the creation and expansion of community technology centers, access to computers and technology for children and adults in low-income communities. These centers can be a valuable resource for individuals with disabilities. For information on locations of these Centers, please see the attached document.

Do you want to know about a program that can be used with students with learning disabilities to assist language learning in Spanish? If the answer is yes, or if you have questions about or would like to get involved in a discussion about technology for students with learning disabilities, go to <http://www.ucpa.org/fctd/bbt.htm>. Follow the instructions to log in.

New Documents

On January 25, 2000 the National Council on Disability (NCD) released the long awaited report on enforcement and compliance with the Individuals With Disabilities Education Act, Part B (IDEA) entitled "Back to School on Civil Rights, Advancing the Federal Commitment to Leave No Child Behind." To see a copy of this report go to www.ncd.gov.

Let Us Know...

...if you have recommendations for organizations to join the FCTD Network! A network is only as good as its members, and while new members are joining weekly, we are always looking for good organizations that are interested in assistive technology and families with members with disabilities. Brochures can be obtained from Toni Ndika (Tndika@ucpa.org) all it takes to join is an email message! §

DIRECTIONS

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Vendors - We welcome product news. Please include pricing and contact name with press releases.

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Removing Barriers to Appropriate Supports & Services

(Part 2)
by Susan Lait

Most parents and professionals enter the field of Special Education unaware of the adversarial environment that they are entering. Parents may enter the Special Education System at different times. If a child's disabilities are severe enough, parents may enter the system following the birth of a child. Perhaps a doctor or other trusted professional has referred a child for evaluation. Parents may enter the system when their child is around three years of age. Parents may also enter the system when a child is referred at an older age as a result of a child failing to perform on the level of his/her peers. Professionals enter the Special Education System as Special Education Educators, specialists, therapists or regular education teachers. Some professionals enter the educational system after previously working in the private sector. Professionals enter the educational system as a result of a career decision to serve children. Both professionals and parents trust that their school administration will provide the training, services and equipment needed to effectively provide services to the children in their care. Most parents and professionals begin their experience in Special Education on a foundation of trust looking to administration for direction and guidance. At some point, parents and professionals may become aware of barriers to receiving appropriate supports & services. Perhaps the realization comes after years of attending Individual Education Plan (IEP) Meetings. Per-

haps a parent or professional has actually sat down and read the Individual With Disabilities Education Act (IDEA) for the first time (Call 1-800-USA-LEARN for a copy). Maybe the realization comes when a regular education teacher has asked for specialized training, a trained aide or equipment and has been refused. Professionals and parents begin to realize that they share a vested interest in a child with disabilities receiving appropriate supports and services. Both parents and professionals reach a point where they realize that they must make a choice to advocate for children and themselves. Professionals and parents then explore the question, "What can I do as a parent and/or professional to achieve appropriate supports and services and advocate for myself in an administrative environment which establishes barriers to appropriate supports & services, and does not appear to be supportive of the child, parents, educators or therapists?"

My husband and I, as parents, made the final shift to advocates after attending years of IEP Meetings. Years ago, we were attending an IEP Meeting with a protection & advocacy attorney who specialized in Assistive Technology. The focus of the meeting was the ongoing difficulty that our school based IEP Team Members were experiencing in implementing the Assistive Technology supports and services that

were reflected in our daughter's IEP. School staff not been provided the training and supports needed to effectively implement our daughter's Assistive Technology. One of the school based IEP Team Members looked at us and in a pleading voice asked, "Can't you see that we are doing the very best that we can do under the circumstances?". As I looked across the room, I could see other school based team members nodding in agreement. During the previous year, we had experienced many barriers and delays in implementing appropriate supports & services. The delays and barriers had interfered with the delivery of the Assistive Technology services that our daughter needed to communicate. The barriers had resulted in frustration and created added demands for school staff who had not been trained to implement Assistive Technology supports. The delays and barriers had impacted on our daughter's independent therapy program. The link between our daughter receiving appropriate supports and services and the effect on the school based professionals was apparent, yet during the previous year the burden for achieving appropriate supports and services for our daughter and school staff was primarily a parent responsibility. It appeared that the school based professionals had reached the uncomfortable point where they must choose to advocate for themselves. In hearing the words, we are doing the best that we can do under the circum-

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considered for every student with a disability. The juncture also is a *critical* one; it is a time when many practitioners have not yet developed the expertise to knowledgeably “consider” technology and specify related solutions, and indeed, are unaware of even general technology benefits for their students. Moreover, with the urgency of transition planning already upon us, we must extend our thinking to the vital *integration* of technology benefits into this important process. The opportunities that technology can provide afford students and young adults alike access to social relationships and careers that were heretofore unavailable.

With that thought in mind, this issue provides a compilation of articles designed to raise the awareness level of preservice providers, professionals, parents, and students about the use of technology in transition planning. We believe that the time has come to present important issues and provide literature which demonstrates that a wide variety of technology applications can be used and merged into transition planning.

This article begins by briefly examining the historical path that has led to current practice. Following this discussion, we point out similarities and perspectives that both fields have in common. Throughout the narrative we provide an overview of the articles to follow. Finally, we examine the impact and implications of the shared horizons of transition and technology.

TRENDS IN TECHNOLOGY AND TRANSITION

This is indeed a “transitional” time for technology and transition planning in the field of special education. Heightened awareness of the potential of technology in special education has been gaining momentum over the last two decades. It is interesting to observe that as the first signs of technological advances in else field of disabilities were being heralded in the early and middle 1980s (e.g., Behrmann, 1984; Blackhurst & Hofmeister, 1980; Ellis & Sabornie, 1986; Hasselbring, Goin, & Bransford, 1988; Jordan & Thomas, 1982; Rieth, Bahr, Polsgrove, Okolo, & Eckhart, 1987), the field of special education also was in the midst of articulating and developing principles of transition and career education.

Madeline Will’s (1984) call for transition legislation first put into a national focus the need for bridging school to work for all students with disabilities. With this impetus, both the definition and role of transition services expanded in the literature (e.g., Clark & Knowlton, 1987; Halpern, 1985; Razeghi, Kokaska, Gruenhagen, & Fair, 1987). Significant research had clearly demonstrated that students and adults with disabilities were not able to enjoy the full rights of citizenship nor participate fully in the American dream (e.g., Hasazi, Gordon, & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985; Zigmond & Thornton, 1985). The barriers included unemployment, underemployment, poor access to post secondary education and training, little social interaction,

insufficient agency assistance, few options for recreation and leisure, and limited personal satisfaction. All were issues that greatly affected the quality of life for individuals with disabilities.

In the rush to put into place the philosophical base and legislation that would address some of these barriers, the period of 1975 to 1988 became a time of disequilibrium. It was a period when the field of special education was progressing well in defining principles and methodologies of transition services, and instructional and assistive technology (AT), but lacking clear direction in legal policies. Even today, research in the area of AT points out that though general guidelines have been written by states, specific guidelines on its implementation reveal a considerable variance in development and clarification (Bell & Blackhurst, in press; Reid, 1994). Lacking guidance from states, local education agencies were left with ambiguous direction regarding assistive technology (AT) and practitioners had little direction on devices that would assist students in their learning.

From a historical perspective, the antecedents of federal legislation impacting on the provision of AT can be traced as far back as the authorization of sections 503 and 504 of the Rehabilitation Act of 1973, and the Education for All Handicapped Children Act of 1975 (EHA) (P.L. 94-142). Both laws established pivotal concepts of *reasonable accommodation and least restrictive environment* (LRE), which in turn opened the door for AT devices and services to be

considered as possible and reasonable methods to provide persons with disabilities access to employment, public education, and postsecondary opportunities (Cook & Hussey, 1995). It is important to point out that in neither EHA nor the Rehabilitation Act did the terms AT devices or service exist. Rather, technology was an *implied* educational component based on interpretation of key provisions in the laws at that time. For example, when AT was provided, the services usually fell under the auspices of a supplemental aid or service deemed essential to support a student in the classroom and/or to insure that LRE was being provided (Hager, 1998; Julnes & Brown, 1993).

The historical provisions of federal legislation impacting transition on the other hand, were far more numerous and extensive than those for AT. For example, the Rehabilitation Act of 1973 resulted in major emphasis on services for adolescents and adults with disabilities, including the identification of work-study services, career development, and employment practices as areas requiring attention and action. Section 504 of The Rehabilitation Act also supported vocational education, training and employment for students with disabilities by assuring equal access to these opportunities, along with accommodations to make the passage to these opportunities possible.

In the 1980s, Section 626 of the 1983 Amendments to EHA specifically required the distribution of annual contracts and grants to strengthen and

coordinate the education, training and related services for this population. Other actions, including The Carl Perkins Vocational Education Act of 1984 and The Rehabilitation Act Amendments of 1992, emphasized transition goals of education, work, and community participation.

Figure 1 provides a timeline of these major pieces of legislation. It should be noted that the economy has been a major force behind transition legislation, agency policies and procedures. A current example of how education, the economy and transition are affected by politics is found in the Policy Directive (RSA-PD-97-04) issued by The Rehabilitation Services Administration (RSA), which oversees state vocational rehabilitation (VR) agencies. This new directive requires VR agencies to approve vocational goals and the services to meet goals which enable persons with disabilities to maximize their employment potential, rather than provide mere entry level jobs. The directive goes on to state that in many cases, trial work or educational placements should be accompanied with the provision of AT as a means of overcoming a disability-related deficit (Hager, 1998).

In the 1990s, we find that transition is not only a federal requirement, but a way to connect systems, provide structure for curriculum, and a political movement (Apple & Zenk, 1996). AT also has its roots in political motivation, for the premise of equal opportunity and access is one in which most Americans believe. From this premise, political actions such as Section 504 of the Rehabilitation Act of 1973, Americans with Disabilities Act of 1990, and Technology Related Assis-

tance Act of 1988 (P.L. 100-407) emerged. An example of how policy directives affect the distribution of AT is found in the 1998 Medicaid brochure, written for parents of children with disabilities. The brochure states "...AT is provided as needed to enhance or complete other services provided to your child and belongs to your child." (Adult and Medical Services Commission of the Kansas Department of Social and Rehabilitation Services, July, 1998). For special education budgets the implications are enormous: If a school district receives any Medicaid money and purchases a device for a specific child, the device goes with the child wherever she or he might move.

Though linked in political philosophy and legislation, the disciplines of technology and transition remained relatively separate from one another through the late 1980's, with each field working to establish its acceptance and practices within special education. Collaborative planning between transition and technology is long overdue, especially in the light of legislative actions which occurred in the period between 1988 and 1990, fundamentally linking the fields of technology and transition. These actions and their impact on mutual perspectives of transition and technology are examined in the next section.

Part 2 of this article, and the figures and tables mentioned, will appear in the March issue of DIRECTIONS. §

AdaptZ.com Highlights

The Resource Directory is up and growing by approximately 1000 entries a day. Featuring 15 categories, including everything from “Assistive Animals” to “Vehicles,” the Resource Directory provides a comprehensive listing of organizations, associations, and businesses that can better connect those with disabilities. The Directory is organized for ease of use with the resources usually just a click away. Updates are made daily. You will find no better source for disability information. Check it out at <http://www.adaptz.com/directory>

TeamZ’s Journal: Read about the joys and struggles in Alexia’s romantic relationship with Israel. She loves him, and he loves her. On the one hand, she wants to marry him. On the other hand, she’s scared and wants to run. “My fear is simple: I fear he will get sick of me or decide one day that he can’t handle my disability and leave.” Alexia’s relationship with a man who is not disabled has proven to be a challenging exercise in trust. Share her experience through this personal, heart-felt account.

Community Calendar of Events: What’s Coming Up in the Disability Community. Stay up-to-date on all the meetings, events, conferences, and expos in the disability community with the most complete events listing available. Our AdaptZ.com Calendar provides all the needed event information and can be searched by location, date, or keyword.

If you have an event you want to post on the Calendar, let us know at: http://www.adaptz.com/events/index.cfm?actionfile=event_select. §

Proving the Experts Wrong

Source: Current Expressions, Prentke Romich Company

When Heather Edwardson was born, she was diagnosed as having cerebral palsy and a severe cognitive impairment. Her mother was told that she would never be able to communicate with her daughter. Therefore, it came as quite a shock when, at the age of 1 ½, Heather began shaking her head appropriately for yes and no.

This was the primary method they used to communicate until, at the age of three, she entered a preschool program for children with handicaps. By this time, it was obvious the doctor’s diagnosis concerning Heather’s mental capabilities had been completely wrong and they needed to find a better way to communicate.

Initially, they set up a communication board that had a mixture of pictures and symbols on it. However, Heather had a very limited range of motion (about 4x6 inches) so her ability to communicate with it was also limited.

At the age of 7 she got a Handivoice, which used number codes to generate sounds. Heather calls it a dinosaur-she had to type in 12 numbers to say her name. However, because its keyboard was small, it was easy for her to access. Heather quickly learned how to use it and came to like it because “it was the first time I was able to make spoken speech.” Her mother liked it because, for the first time, she could be away from Heather, in another room, and still carry on a conversation with her.

The next year, they attended a conference that had a communication lab where they tried out various communication devices. This experience ultimately resulted in Heather getting a Touch Talker.

At the first meeting about the Touch Talker, Heather’s mother felt overwhelmed until she realized that “it wasn’t me that had to learn all of this, it was Heather. All I had to do was plug it in and charge the batteries.” She soon became comfortable with it and helped with selecting and tracking the vocabulary.

Heather picked up on Minspeak very quickly- “It was not hard to learn because I learn quickly.” Since there were no Minspeak Application Programs at that time, all of the vocabulary had to be loaded manually. In planning her vocabulary Heather learned that she “had to learn to store information according to related sequences so that the information was not scattered.”

For a while after receiving her Touch Talker, Heather continued to use a manual board to supplement what she had in her device. Once she had mastered enough vocabulary, she used the Touch Talker for all of her school work.

From second through sixth grade, she participated in a gifted and talented program. She also was very competitive in the city wide spelling bee. She often represented her class and once made it to the city level.

Around the time Heather entered Jr. High she got *Words Strategy*, which provided a consistent structure for her vocabulary. Although she did some modifications to the program-adding vocabulary, changing a few icon sequences-she didn't change it much.

By the ninth grade, Heather was running out of memory. Fortunately, the Enhanced Minspeak Operating System (EMOS) was available, which permitted vocabulary to be stored more efficiently. Installing EMOS effectively gave Heather more room in her device.

This was important because, to participate fully in school, she needed to be able to add and delete vocabulary as needed for her various classes. By her Junior year, they were changing vocabulary almost daily.

Heather used her Touch Talker for all of her high school needs, including foreign languages. She took one year of Latin and four years of French and used her Touch Talker to speak both of them. It had SmoothTalker speech at the time and she found that she had to spell things phonetically for French just about as often as she did for English.

By the time she was a senior, her Touch Talker was at its limits. Because she was close to the end of high school, they went to Voc Rehab for assistance. Though Heather had been using a Minspeak system for a number of years, Voc Rehab wanted her to try a word prediction system. Heather did, but she also tried a Liberator, which she preferred. Heather received her Liberator just about the time she graduated from high school. She then took most of a year off from academics to attend the Courage Center

where she learned some independent living skills.

Heather now attends the University of North Dakota at Grand Forks. After the break at the Courage Center, she is thrilled to be back at the books again.

Her major is undecided but she's leaning towards Life Science. Last semester she had biology, anthropology, and composition. This semester she is taking archeology, biology, and introduction to art history. Not bad for someone a professional once claimed would never be able to communicate.

Ed note: For more information on products mentioned in this article, contact Prentke Romich Company, 1022 Heyl Road, Wooster, OH 44691, 330-262-1984, 800-262-1984, 330-263-4829 FAX, or 800-262-1990 for 24 Hr Service §

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stances, it was apparent that a decision had been made that advocacy was a parent responsibility.

We have also attended IEP Meetings where a school based IEP Team Member takes responsibility for advocating for herself. This professional clearly expresses what supports and services she will need to create a successful delivery model based on the supports & services reflected in the IEP. This professional requests that these supports & services be reflected in the IEP. This professional recognizes the partnership between professional and parent. Such a teacher or therapist recognizes the burden that is placed on parents to be the primary advocates for their children and attempts to direct parents on their journey to becoming effective parent advocates.

The first time such a professional attended one of our IEP Meetings, we thought that she must be an angel sent from heaven. That professional

placed the responsibility of providing supports & services for herself and our child with the Local Education Agency. The Local Education Agency responded by including the professional's requests in the IEP.

When, as a parent or professional, you ask yourself the question of what you can do to remove the barriers to appropriate supports and services in a non-supportive administrative environment, you will also be making a decision to take responsibility for becoming an advocate for yourself and children who have disabilities. Both professionals and parents will be working towards acquiring the supports and services which will allow you to effectively meet the needs of children in your care. You will recognize that when we say that we are doing the best we can do under the circumstances, we are not accepting the responsibility for advocacy or to ask for the supports & services that are needed. If you are a parent of a child with disabilities the first advocacy lessons you learn are 1) You must know the law,

2) You must be trained, 3) You must know what you need and 4) You must ask for what you need. If you are a professional, who is just beginning your advocacy journey, you too will begin with the same lessons. We can work together as professionals and parents to bring joy to parenting and joy to a profession that serves children with disabilities. We too can feel the pride that we hope to teach our children with disabilities the pride in being independent and responsible for ourselves. For us as parents and professionals this means the pride in taking the responsibility to advocate for ourselves and the Special Needs Children in our care.

If you have any personal stories, comments, questions or concerns, please contact me at aslnc@citcom.net or the editor at DIRECTIONS, Janet Hosmer, at janet@dreamms.org. Directions and I will not publish your responses, comments or mention your name without consent from you. §



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