

# My Brain Works...My Legs Don't! Let's Take the "Dis" out of Disabilities

*Judith N. Skinner*

*STC's Special Needs Committee has begun its work of information collection for and dissemination to technical communicators with disabilities. This paper by the Committee chair is a "call to arms," sets out what has been learned so far, and solicits your participation in the ongoing effort.*

*Please see contact information at the end of the paper.*

The Special Needs Committee was born at the 1997 Conference in Anaheim. Its first meeting was at the 45th STC Annual Conference in Cincinnati. It is one of the Society's Professional Development committees, and its charter is to help members with special needs develop and achieve their potential by making available to them information about products and services that can assist them in career activities. Although the committee might be considered still in "start-up" mode, we have accomplished much in our first year.

Why was this committee formed? One might say out of frustration. Consider the case of a wheelchair-bound professor trying to get to a class across a busy campus who runs into a six-inch curb with no ramp anywhere in sight. And the case of a visually-impaired student trying to get to the class who can see the street signs hung on overhead wires, but not the words on the sign.

And how does "Equal opportunity employer" apply to the hearing-impaired technical communicator whose employer has turned down his/her request for a telephone device for the deaf and, as a result, cannot effectively complete the numerous SME and user interfaces that are so basic to our profession? How do those words apply to a hearing-impaired job seeker who sees the words "excellent oral communication skills required" for a job that actually requires an individual to be able to ask questions and understand the answers?

This isn't only a legal issue. It's one of basic respect for the individual. Individuals with disabilities are a part of "We The People," and as such are entitled to human respect and an opportunity for self-development. The committee began by reaching out to individuals and to chapters, asking for help in identifying members with special needs and products and services useful to them. Responses were immediate. We were both amazed and gratified.

Responses fell into three categories: requests for information; information about products, services, and Web sites; and stories, mostly about frustration and coping.

One day, there was a long lineup at the bank, and I decided to go right to the teller and ask her to serve me right away, since I couldn't wait for 20 minutes standing up. The teller accepted that without any trouble, but a lady who was standing in line grumbled that it wasn't fair, yada-yada. So I stared at her, and said out loud: "Excuse me - would you like to trade my handicap with your standing in line?"

Once upon a time here in Brussels, I met a woman sitting in a wheelchair in front of an ATM. Normally, Belgians are afraid to talk to strangers, but she asked, "Would you help me?" She gave me her ATM card and told me her PIN code and how much money she wanted; I guess that I have a face that people can trust. I did it for her. That was the first time that I realized that ATM machines are designed for people who can measure up.

And you would be surprised at the number of sales clerks in various states that have originally refused my state ID card as proper identification (individual is legally blind) --after all, it's NOT a drivers' license. But it IS proper ID. Who says only drivers can buy booze, write checks, and so on?

The committee also heard success stories. We learned about a gentleman named Jeff, who is blind. He can tell his story better than I.

I am totally blind. I use a Keynote Companion, which is a laptop computer with its own word processor, and I use a desktop PC with JAWS For Windows and Windows 98. I have only been at Ferris State University's Technical Communications program for about a month, but before I came to Ferris I was at Northwestern Michigan College in Traverse City, Michigan.

When I originally started college, I was going to go into computer information systems, but I soon discovered that the math requirements were too far above my skill level. However, after I started school I did discover that my writing skills improved during the first year. One of my English teachers for freshman year recommended that I go into technical writing. In my second year of

college, I did three very intensive writing projects in one semester. These included writing a 15-page research paper on public safety communications and a 12-page court observation, both for a criminal justice class. The third assignment that I did was a 40-page paper for a child development class that I took up as an honors project, and that was an evaluation of different baby care products that included disposable diapers, training pants, and baby monitors. I received 4.0 grades.

In the semester prior to my graduation I took a technical writing class and made some changes to the baby product paper - reducing it and also including more information that was based upon product testing.

This year at Ferris, I am planning on working on a project on public safety communications equipment, and I am hoping to publish my research findings in a magazine that is mainly read by professionals in the two-way radio communications industry. However, I am keeping my mind open to other options as well.

I'd like to take some credit for Jeff's accomplishments, but I can't. They are all his. He has had a successful college career and his future seems bright.

A woman named Fran writes:

You can put me down for hearing loss, wearer of two canal hearing aids. I can help identify workplace issues, products, and resources such as Self-Help for Hard-of-Hearing, that has a greater-metro area National headquarters. Also I have worked with my company's office services staff to identify and implement assistive listening devices (ALDs) for use during meetings, conferences, etc. I am the pioneer for my company, as most people with hearing loss do not want to admit it so do not identify the problem or ask for help as I have. For having "come out," we now have several people who have asked to use the ALDs that I use. Someone had to go first!

There are many administrative changes that can be made also; for example, someone with hearing loss is incapacitated when fire alarms go off. The sound overwhelms their hearing aids; with or without the aids, the person cannot hear the loudspeaker instructions that follow.

Hearing loss is invisible; you can't "see" the disability. Therefore, coworkers and even human resources staff do not have much experience with it. I found it most helpful to research an issue myself, such as what type of assistive listening device to provide in conference rooms, and then present the research and suggestion to

human resources staff. The hearing-disabled person must teach others how to accommodate the disability. Coworkers and administrative staff respond positively when told or shown what to do to help.

I've given you this amount of detail to underscore the problem and illustrate that much help is available in the workplace with simple accommodations.

A woman in Canada has severe mobility problems and can only lie on her stomach. Her family reports that she uses a helmet with a pointer to access a keyboard.

As you may imagine, this is a painstaking process for her from an unusual position. She also uses a flat screen that can be positioned at eye level (and bed level), a keyboard that can be rotated to accommodate her positioning, and a switch to help in key selection.

Another of the committee's correspondents writes:

In British Columbia, a group of retired engineers called the Tetra Society donates their time to adapting equipment for people with disabilities. Between this volunteer and an excellent technician, we are attempting to overcome accessibility challenges as they affect her.

We tried an eye switch for people with limited movement, but the development is far from complete and is currently very cumbersome and reactive.

A woman named Ann wrote that she and her husband

... wrote the typing tutor, Unicorn Quest, for a one-handed eight-year-old girl. It's a DOS program, but works in all versions of Windows, and we recently created a Mac version as well. We distribute it free from our web site (it's shareware, but only schools ever pay for it) and other web sites distribute it for us too. It works for two hands as well as one, and is now popular with children all over the world (especially girls). We hear from a lot of one-handed adults who have found it useful too. We designed it so that it's easy to customize the display of the fingering for people with missing fingers. They just have to write and ask us.

We have learned about Web sites and organizations dealing with the very broad topic of disability issues:

- Adaptive Technology Resource Centre, University of Toronto, is the largest R&D facility in Canada for adaptive technology. Some of the work they are doing might be of interest, including inclusive web site design and accessible distance education. They have information about hardware and software and provide consulting

services, demos, and training.

<http://www.utoronto.ca/atrc>

- Department of Justice, Americans with Disabilities Act Home Page, <http://www.usdoj.gov/crt/ada/adahom1.htm>
- ADA-related information: <http://adabbs.hr.state.ks.us/dc/general/assist.html>
- The Assistive Technology Act of 1998. This act supports programs of grants to U. S. states to address the assistive technology needs of individuals with disabilities. <http://www.mdta.org/tt/1998.09/1b-art.html>
- Bobby Home Page. Bobby is a program that checks Web pages for accessibility. <http://www.cast.org/bobby>
- Gallaudet University has a resource list on their website at: <http://www.gallaudet.edu/~pubweb/newsinfo/deaf-info.html> (Note also the section titled "National Deaf WWW sites" at the bottom.)
- List of Mobility Impairments Alternative Input Devices, [http://www.wolfe.net/~dr\\_bill/mobaltin.html](http://www.wolfe.net/~dr_bill/mobaltin.html)
- The National Information Center on Deafness at <http://www.gallaudet.edu/~nicd/index.html>
- Northern Virginia Resource Center for Hard of Hearing and Deaf Virginian
- The Northern Virginia Sign Language Club has a resource list at: <http://www.NVSLC.com/links.html>
- Texas Commission for the Blind: <http://www.tcb.state.tx.us/>
- W3C Web Content Guidelines Working Group. The goal of this group is to produce the Web Content Accessibility Guidelines. <http://www.w3.org/WAI/GL/>
- A website of disability resources at <http://www.esmerel.org>
- The Workforce Investment Act of 1998. The act ensures that individuals with disabilities have access to and use of information and data that is comparable to the access to and use of the information and data by such members of the public who are not individual with disabilities. <http://www.usdoj.gov/crt/508/508law.html>

Our database and Web site are underway and scheduled for debut soon. We have published a brochure that we hope you will take at the Conference and pass along to interested parties. We have also found some promising products in which you may be interested:

- FootRat, Rat Mat, and pedals - for people with wrist and hand mobility problems. A piece of cardboard can substitute for the nylon mat. There is also a free software program that converts an unused function key into what

clicks the mouse. The product is available online at <http://www.touchtime.com>.

- Optical character recognition programs allow the blind or visually impaired user to scan in text, and have it recognized and spoken aloud, including:
  - Kurzweil 1000
  - Ruby
- L&H Voice Xpress(tm) is a speech recognition product. One model (Voice Xpress Mobile Professional) is packaged with a digital recorder that is good for 70 minutes of dictation, which you can then plug into your computer and convert to text. Other voice recognition programs include:
  - IBM Via Voice and ViaVoice Gold
  - Dragon Systems Naturally Speaking
  - A program that can be found at <http://www.conversa.com/index.asp>
- Programs that enlarge on-screen print include:
  - Zoomtext Xtra o LP Windows
  - Magic
- Screen readers, which attempt to read all of the pertinent information that appears on the screen, include:
  - Job Access with Speech, a.k.a. JAWS for Windows (Henter-Joyce). Henter-Joyce is developing a product called MAGic for low-vision users.
  - Window-Eyes
  - Outspoken for Windows

In addition to print enlargement, some of these programs are now providing limited speech, although it is assumed that the user will not be completely dependent on this oral output.

Some screen readers can, in addition to producing speech, also display the screen's contents in refreshable Braille on a display device specially designed to show Braille dots.

- Specially-designed handheld computers, called notetakers, give the blind/visually impaired person a portable method of writing down and storing information. Most of these devices use a speech interface, but there are also a few that use Braille. The keyboards are sometimes designed around the standard computer qwerty keyboard and in other cases around a Braille keyboard.
- Blazie Engineering produces the Type 'n' Speak, Braille 'n' Speak, and Braille Lite.

- Pulse Data produces a notetaker called the Keynote Companion.
- Unicorn Quest, the typing tutor previously mentioned, is distributed free from the developer's website, <http://www.esmerel.com>.

We invite you to share with us your insights and information. People with disabilities can be a valuable resource to your business. All we need is a little help to meet a special need of one kind or another - that's the key that unlocks our abilities.

So this, then, is the STC Special Needs Committee. Our committee does not diagnose, prescribe, or endorse. We collect information and pass it on. We facilitate. And working together, we can help take the "dis" out of disabilities.

Can we help everyone? Of course not. Who could? But is that any reason not to try?

I'm reminded of the story about the beach strewn with starfish and the little girl picking them up and throwing them back in the ocean. "Little girl," a passer-by said, "what are you doing?" "I'm saving the starfish," she replied. "But there are so many! Your efforts can't possibly make a difference," the passer-by said. As she picked up another starfish, the little girl said, "It makes a difference to that one."

We ask you to help us make a difference.

**Judith N. Skinner**  
1004 Harpole Road E.  
Argyle, Texas 76226-4001, USA  
940/464-3300  
[Judy.Skinner@juno.com](mailto:Judy.Skinner@juno.com)

Judy Skinner is an Associate Fellow and former Society Secretary. She has earned an MBA, and also an M.M. in human resource management from the University of Dallas. She has received writing awards from the Lone Star Chapter's publications competition. Former employers: Candle Corporation, IBM, Texas Instruments, and Harris Corporation.