

ACHIEVE!

Guidance for Web Page Designers and Product Developers

Stuckness and Low Vision

How Technology and Socratic Classroom Dialogue Changed My Life

*By Gloria A. Reece, Ed.D.
Atlanta Chapter*



*Gloria during
undergraduate program
at Florida Institute of
Technology*

I imagine the year is 1956 and you have just given birth to a three-pound baby girl at a small-town hospital in eastern North Carolina. While in the hospital, you learn that you won't be able to take your newborn home immediately because she must remain in an incubator where she can get proper oxygen and nursing care for at least six weeks. You follow the doctor's advice and agree to leave your infant in the care of the hospital.

About four weeks later, you hear television news broadcasts of the dangers of blindness associated with the oxygen and bright blue lights used in hospital incubators—an eye problem described as Retinopathy of Prematurity (ROP) or Retrolental Fibroplasia (<http://www.rnib.org>).

After hearing the news announcement, you decide to investigate the incubator care that the hospital is administering for your child more closely.

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Order Your Pins Today! Just One Week to the Deadline!

Calling All AccessAbility SIG Members: “Operation Butterfly” Needs Your Support

By Bonnie Spivey and Dan Voss

As many of you are probably aware, our SIG has, since its inception, been involved in a continuous struggle for financial survival. As the Society's newest and one of its smallest SIGs, we face a significant gap between the annual cost of our educational and service outreach initiatives and the funding required to sustain those initiatives.

Faced with severe fiscal constraints, the Society has been enforcing a SIG budget limit of \$4 per member. For a well-established SIG of a thousand

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Stuckness and Low Vision

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On the day of your unannounced visit to the hospital nursery, you find your child with red, blistered skin—the same danger signs mentioned in the news broadcast. You immediately terminate the incubator care for your child and take her home.

In the months ahead, your child has successful progress checks with the pediatrician and seems to be developing normally. When your child is about 10 to 12 months old, she takes two steps and falls each time she tries to walk. You are encouraged by your mother to take the child to an ophthalmologist. The examination reveals that the child has Strabismus (commonly referred to as crossed or lazy eye) with amblyopia due to adverse refractive error (<http://www.eyemdl.com/Condition.asp?ConditionID=421>).

Two months later, the ophthalmologist fits your 14-month-old child with glasses, whereupon she takes her first steps! By the time your child is 6, the ophthalmologist has not been able to correct the crossing with corrective lenses and patching. Moreover, to prevent a permanently reduced vision outcome or even total blindness by middle-age, the doctor recommends Strabismus surgery by age six (1963) (<http://www.eyemdl.com/EyeProcedure.asp?EyeProcedureID=59>).

As time goes by, the progress checks with the ophthalmologist are very good and progressive. But 34 years later (1997), you learn that your daughter is still experiencing vision and motor-related problems (walking and speaking) due to Strabismus and lack of available prescriptions to correct her vision. Through the years, she has used all of the available single-lens prescriptions for stereo vision, and the doctor that performed the Strabismus surgery and monitored her case—a world-renowned ophthalmologist who founded his own hospital in North Carolina—has retired. Since 1985, your daughter's single-lens prescriptions have not changed. During this time, ophthalmologists have tried a variety of



Chatty Cathy



Dream Baby

“We cannot help you; you’ll have to find your own way.”

options including bifocals and prism lenses. All of these trials have failed, and doctors have finally told her, “We cannot help you; you’ll have to find your own way.”

At this point, your daughter conducts her own research and decides to see a neuro-ophthalmologist who recommends a trial in contact lenses, a last attempt to problem-solve her situation. Additionally, the contact lens solution may not work because of the eye muscle problems; irregular astigmatism (relates to the shape of the eye at birth and has resulted in a misshapen cornea on the left eye), dry eye (<http://www.eyemdl.com/Condition.asp?ConditionID=5>), a retinal scar (possibly a result of premature birth), etc. Other surgeries are not recommended. The contact lens manufacturing process is labor-intensive for everyone. Some doctors give up because the fittings do not conform to a specific pattern and require too much custom work! Additionally, the contact lens insertion and removal procedure is one that is difficult to accomplish with a strabismic because the eye muscle movements are difficult to control. In your daughter's case, doctors gave up here as well!

Now, let's reflect on the 1960's for a moment. Do you recall the popular 14-inch tall, battery-driven “Chatty Cathy” (walking and talking) doll (<http://www.mastercollector.com/articles/dolls/dollnews33001chatty.shtml>; and <http://hometown.aol.com/kissnchatty4me/chatty.html>)? Through the years, Chatty Cathy has also undergone changes in her eyes. Now, a similar product, “Dream Baby,” is also a hit among youngsters. This doll also crawls, walks, talks (learns, sings, and plays). Now, hold these thoughts and let's return to the opening scenario.

For the next four years, doctors and contact lens designers and manufacturers

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SIG Manager's Column

Year TWO, and Growing Strong

By Fabien Vais, Montreal Chapter
AccessAbility SIG Manager

Welcome to this issue of *Achieve!* – the online newsletter of STC's AccessAbility SIG.

Dan Voss has taken this SIG into the 21st century, and I am very grateful for his relentless work and devotion. Although I have been chosen to replace him as SIG manager, Dan remains a solid partner. I don't think I would have accepted the SIG leadership position without his help and support.



Fabien

I would like to thank Mike Murray, our editor-in-chief, for his outstanding work on this issue. I would also like to thank all the contributors whose collective effort made this issue possible.

Having gone through painful and sometimes scary growth spurts, our SIG today is in much better shape. Born in 1998 as the Special Needs Committee, our team has grown from a handful of founding members to a SIG of just under 300 members. It continues to grow steadily. Our members come from North America, Europe, the Middle East, India, the Far East, and Australia.

We have gone from a working committee (the Special Needs Committee) to a full-fledged Special Interest Group (SIG). We are now known as the AccessAbility SIG, and together with our new logo, we have a brand new look.

Our SIG website (<http://www.stcsig.org/sn/index.shtml>) has also recently undergone major improvements. In addition to incorporating our new logo and SIG name, our Web diva Cynthia Lockley and her assistant Leslie Reed have redesigned the site, and most importantly, have made it much more accessible to people with vision disabilities. Our aim is to make this website one of the most accessible sites on the Web.

Our SIG listserv has also blossomed from a few members to about 115 members, and many lively exchanges have taken place in this online forum, where professionals from around the world have helped each other resolve accessibility questions.

The twofold mission of the AccessAbility SIG is to assist technical communicators with disabilities in the practice of our profession and to guide all technical communicators in making the products we create more accessible to end users with various disabilities. Our detailed mission statement is at <http://www.stcsig.org/sn/aboutsig.shtml>.

We have been working on a few new initiatives recently. One of the most promising is our SIG's participation in a special issue of STC's *Technical Communication* journal in 2005 focusing on accessibility and usability. Our own Dr. Gail Lippincott, from North Texas State University, has graciously accepted the responsibility of coordinating our efforts to produce a series of highly professional articles for this special issue dedicated to accessibility issues. I urge you to consider submitting an idea for a research article to be considered for publication in this important forum in one of the world's most prestigious scholarly journals for technical communication. Watch for a Call for Articles in the near future.

Another initiative has been given the code name Operation Butterfly ([see page 1](#)). This is an internal AccessAbility SIG fund-raiser involving the sale of lapel pins bearing the SIG logo and motto. We are asking each and every one of our SIG members (and friends of the SIG) to purchase at least one or two of these pins, in support. This is a vitally important initiative in helping the SIG secure sufficient budget to continue to pursue our many initiatives. Please read the article in this newsletter to find out more details about how to order your pins. Thank you in advance for your support.

Building upon our past success at STC conferences, we are planning to once again be very much involved at the Baltimore conference in May. We are already working on the third in a highly successful series of Conference Guides for People with Special Needs ([see page 8](#)). We will also once again be involved in the technical sessions. Lori Gillen has organized all ideas submitted into two progression-style presentations, both of which were not only accepted but praised by the stem manager. We are also planning to publish a two-page conference issue of our newsletter as we did last year in Dallas.

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Letters to the Editor

Native Wisdom

Anonymous

Contributed by Judy Skinner from the Internet. (Source unknown; no copyright infringement intended.)

An elderly Cherokee Native American was teaching his grandchildren about life. He said to them, "A fight is going on inside me. It is a terrible fight and it is between two wolves. One wolf is evil — he is fear, anger, envy, sorrow, regret, greed, arrogance, self-pity, guilt, resentment, inferiority, lies, false pride, competition, superiority and ego. The other is good — he is joy, peace, love, hope, sharing, serenity, humility, kindness, benevolence, friendship, empathy, generosity, truth, compassion and faith. This same fight is going on inside you, and inside every other person, too."

The children thought about it for a minute, and then one child asked, "Grandfather, which wolf will win?"

The Elder simply replied, "The one you feed."

About Lawsuits Regarding Accessibility

Submitted by Hugh Marsh

Since I'm familiar with the effect of the ADA (and the earlier 1973 Rehabilitation Act), I checked on the statistic stated in an earlier post to the A-SIG listserv that the ADA was less than 1% effective and had essentially been scuttled by the current Bush Administration. A friend (an ADA consultant in Sacramento, California) sent me the following:

"The percentage of cases won by plaintiffs suing for employment discrimination is somewhere around 20%. A good source is National Council on Disabilities at <http://www.ncd.gov/newsroom/publications/03publications.html>.

"The Bush administration has not put the act on hold due to terrorism. In fact, last week, the Solicitor General of the the U.S. DOJ [Department of Justice] issued an opinion on the Barden v Sacramento appeal to the U.S. Supreme Court that clearly and vigorously defends that the ADA requires states and local governments to make sidewalks accessible to people with disabilities. It's easy to be paranoid today, but we should try to maintain some grip on reality."

(Hugh, again) Since the 1970s, the U.S. has made significant progress in removing barriers--physical and societal--for people with all sorts of disabilities. Last summer I drove across the U.S. from Santa Barbara to Toronto, Ontario by myself. I'm 69, a post-polio paraplegic with severe post-polio syndrome, use a power wheelchair, and drive a modified van. I stayed in hotels and motels, used restaurants, went to the Shakespeare Festival in Stratford, Ontario. All venues were accessible. Twenty years ago, I could not have done this alone, or even at all. Sure, there are still many areas that need improvement, but we have made significant progress.

I've personally filed four ADA lawsuits, have won two, and have excellent prospects of winning the other two. Well-positioned lawsuits are the only way that some of the ADA provisions can be enforced. But, then, this shows that the law is working The Bush Administration is doing enough damage to American society. We don't need to exaggerate.

Hugh, in gloomy June Santa Barbara

You amaze me! I know, I know. I should have learned long ago not to be, but I still can't help it. You are truly amazing.

As an STC chapter president, I regularly see so-called "able-bodied" members fade into the background like wallflowers. At the same time, members whose plates are already full quickly and happily step forward to help. The members of the AccessAbility SIG remind me a lot of the latter group. You'll do anything to help someone, you'll take any risk, look any challenge squarely in the eyes. You have no reverse gear, no neutral, only forward. You live life to the fullest.

An American author named Jack London once wrote: "I would rather be ashes than dust! I would rather that my spark should burn out in a brilliant blaze than it should be stifled by dry rot. I would rather be a superb meteor, every atom of me in magnificent glow, than a sleepy and permanent planet. The proper function of man is to live, not to exist. I shall not waste my days in trying to prolong them. I shall use my time." I'm certain that Mr. London was inspired by someone like you.

Like I said, you amaze me.

Regards, Mike



The Starfish Chamber... You Make the Difference!

By Fabien Vais, Montreal Chapter
AccessAbility SIG Manager

In each edition of the newsletter, this column acknowledges the outstanding effort of one of our SIG members. Last year, I was humbled when I was honored with the first AccessAbility SIG Starfish Award, which is based on our one cherished metaphor of the starfish (<http://www.stcsig.org/sn/PDF/StarfishStory.pdf>). This year, the award goes to my colleague and good friend Lori Gillen, for rising above her customary shyness, and for leading us both in a critical membership drive and in our involvement in the next STC conference.

When our Special Needs Committee turned into a SIG, we were suddenly faced with a totally inadequate budget based solely on the number of SIG members. Since we were still just a handful of people, what we received from STC

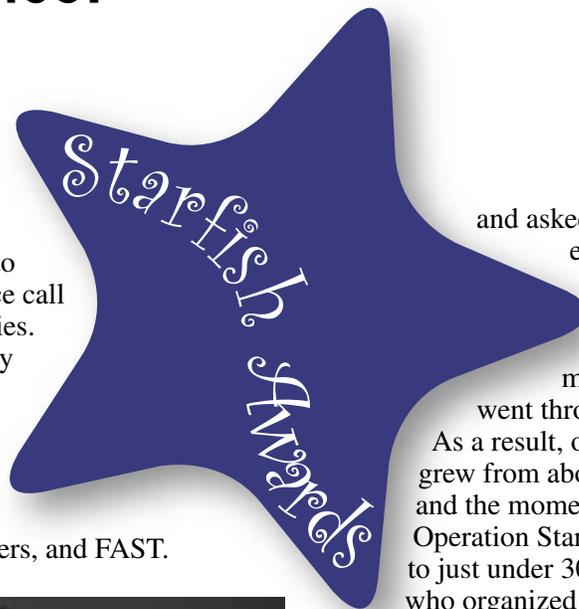
was barely enough to cover one conference call and a few photocopies. We couldn't possibly work on the initiatives we had discussed for months. We desperately needed more members, and FAST.



AccessAbility SIG manager Fabien Vais, Montreal Chapter, and Lori Gillen, Boston Chapter, share ideas for the Special Needs progression in Nashville.

Enter Operation Starfish

Lori Gillen, (assisted by other 14 other members,) contacted ALL STC chapters,



and asked them to try to encourage people to join our SIG. All contacts were followed up to make sure the message went through to the members. As a result, our membership grew from about 20 to over 200, and the momentum generated by Operation Starfish has carried us to just under 300 today! It was Lori who organized this drive, separating the tasks and making sure we got the results we all wanted.

As if that weren't enough, Lori Gillen also accepted the important challenge of serving as our Baltimore conference SIG involvement coordinator. She single-handedly asked everyone to submit ideas for presentations, organized all this information, found speakers, and prepared two excellent proposals that were ultimately not only accepted by STC for presentation but enthusiastically endorsed by our stem manager.

Lori, thank you very much for all your effort and for your obvious devotion to our cause. I know you will always continue to make a difference. 🌀

SIG Manager's Column

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We continue to have an excellent alliance with our colleagues in the Usability SIG. In fact, at this year's conference, a few of us will team up to be part of a new format of presentation called a "Marketplace"—an informal but lively forum for information exchange.

In keeping with our tradition of acknowledging the outstanding effort of one of our SIG members in each

edition of the newsletter, I invite you to read the Starfish Chamber (above). I don't want to spoil your surprise, so go read the article!

In closing, I would like to say that most of you know by now what we have already achieved. Now it's time to show the world the extent of what we CAN achieve. Together, we can make a difference. 🌀

Operation Butterfly

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members or more, this approach provides a reasonably adequate operating budget. But when you number 267, funding does not provide enough revenue to sustain our dual mission: (1) help technical communicators with disabilities in the practice of our profession and (2) help all technical communicators design communication products that are fully accessible to end users with disabilities.

These activities range from teleconference calls to coordinate and administer our programs to printing costs associated with the extensive support we provide to the annual international conference to make it as fully accessible as possible for all attendees.

Last chapter year, we were able to close the budget gap by deferring a significant amount of activity to the current year and through the generosity of two corporate sponsors. This year, we are relying on two sources of income to supplement the \$4-per-head funding that STC provides us: (1) continued and possibly expanded corporate sponsorships and (2) an internal A-SIG fund-raiser involving the sale of lapel pins.

The latter was launched on January 27 under the code name “Operation Butterfly” from the signature graphic in our A-SIG logo, which will be printed (photo dome process) in four bright Pantone colors on an attractive 1 ½-inch round pin with a nickel plate background (looks like silver). The backing is a military clutch.

We are asking every A-SIG member to order at least one or two pins—both to wear as a proud emblem of our organization and help us secure finances for our important work. If you are able, we are asking you to purchase multiple pins to distribute to members of your chapter, professional colleagues, friends, and family to extend our outreach and provide us financial operating room.

When we get enough orders to cover vendor costs, we plan to order 500 pins, making the unit production cost \$.96 per pin. The price for one pin is \$5—\$4.04 of which is a tax-deductible contribution to the SIG. For multiple-pin orders, the price per pin decreases significantly (see Table 1); here

Table 1. Price Structure for A-SIG Butterfly Lapel Pins

Quantity	Total Price (\$)	Unit Price (\$)	Total Value (Value R'cvd) (\$)	Tax Deductible Contribution (\$)
1	5.00	5.00	.96	4.04
2	9.00	4.50	1.92	7.08
3	12.00	4.00	2.88	9.12
4	15.00	3.75	3.84	11.16
5	17.50	3.50	4.80	12.70
10	30.00	3.00	9.60	20.40
25	50.00	2.00	24.00	26.00

also, everything past the actual production cost (unit cost times quantity ordered) is a tax-deductible contribution.

To order your pin or pins, send an e-mail to Bonnie Spivey at bspivey77@cfl.rr.com specifying the number of pins you wish to order, based on the prices in Table 1. Do NOT include payment as we must make certain we have a “go” on this venture before any money changes hands.

When we have received enough orders to proceed, we will notify you via e-mail to send us your payment via check, along with a self-addressed stamped envelope. We will determine weights per pin quantity, compute postage, and let you know how much postage to put on your envelope. When the pins come in, we will send them in the SASEs, protected with bubble wrap, with a receipt that certifies the charitable contribution and—as a special bonus—an attractive, four-color A-SIG business card!

Orlando STC chapter treasurer and A-SIG member Karen Lane has generously agreed to coordinate the financial processing via chapter channels, greatly simplifying the interface with the STC Office; and A-SIG member Bonnie Spivey, president of the Future Technical Communicators (FTC) Club at the University of Central Florida, has offered the support of her organization to process the orders and mail-outs on a timely basis. This will ensure that you receive your pins in time for the Baltimore conference.

We are hoping to sell at least 500 pins. As of press time, sales stood at 389, with one week left until the just-extended deadline for pin orders—Friday, March 5. If we meet our goal, we will not only ensure our financial viability for this year, but if we are also successful in our concurrent corporate sponsorship initiative, we should be solid going into 2004-2005. If we get a strong response in the final week of the campaign, we may even increase the initial quantity ordered to 1,000, reducing unit cost to \$.78 and increasing the amount of revenue generated for the SIG. (If this happens, we’ll increase the tax deductible portions of the contributions accordingly on the receipts.)

Even though Operation Butterfly is within striking distance of its goal, records show that a large percentage of members have not yet ordered pins. This beautiful pin is going to be a compelling symbol of our SIG and its vital initiatives. At this point, the chance of us being able to order 1,000 pins is a long shot. That means it is conceivable we could sell out the order of 500 by March 5. If it plays out that way, the next opportunity for those who do not order a pin now to acquire one might not occur until we can muster another order for 500, probably not until 2005 or 2006.

We urge you to ACT NOW!!! Fire off your e-mail orders to Bonnie as you read this, while it’s fresh in your mind. Order your pin(s), wear them proudly, and support your SIG. Let’s bring Operation Butterfly to a dramatic and successful conclusion! 



World Wide Open

Blind, Deaf Tech Writer Makes Life Work on Her Terms

By Julie Marshall, Camera Staff Writer
May 18, 2002

Editor's Note: We gratefully acknowledge Julie Marshall and The Daily Camera (<http://www.dailycamera.com>) for granting us permission to reprint this article in its entirety. The article originally appeared in the May 18, 2003, edition.



Maureen Hogg: an indomitable spirit!

The heat of the sun, the smell of spring lilacs, the dips and holes in the concrete trail beneath her feet. The world is a place of wonder for Maureen Hogg, even though she lost her sight and hearing as a teenager.

A couple of times each week, Hogg a senior technical writer for Ball Aerospace Corp. for the past 25 years, takes a jog in the neighborhood. Hogg, who will compete in the Bolder

Boulder this year, enjoys turning off the computer to get fresh air.

"I just like the freedom," she says in a soft, melodic voice.

Hogg feels the sun's rays on her shoulders and knows it's not a cloudy day, as well as which direction she is going, says her running partner, Steve Daudt, who steers her clear of obstacles. At the Foothills Highway overpass, she feels the steel railing along the ramp and says, "Oh, time to go back."

If there is one word to describe Hogg, it is adaptable, her friends and coworkers say.

At work, Hogg communicates with people who scribble words with one finger on Hogg's upturned palm. Ball Aerospace has upgraded her technology

over the years. The latest innovation is SuperBraille a laptop computer with screenreading software that can translate email, icons, even Internet Explorer, into Braille.

Outside work, Hogg is a competitive runner and cross country skier. She devised a plan in which a skiing partner writes signals on her back. There's always room for humor. A pat on the behind means a steep downhill ahead. She plays golf, rock climbs and travels. In 2001, Hogg went to southeast Alaska where she placed her hands on an iceberg at high tide.

"Nothing can compare with the aquamarine of ice floes adrift in calm water on a clear day," she wrote in her Christmas letter to colleagues and friends that year.

Hogg knows colors. She knows the sound of the spoken word. She did not start losing her senses until she was 14 years old. It was the fall of 1969, and over a period of 18 months, Hogg says, it happened.

"No one knew why," Hogg says, only that it relates to the inner ear. Hearing aids help, but even with them, she cannot comprehend a

word being said, so she does not wear them.

The vision loss was more noticeable, as her retinas hemorrhaged, scarred and partially detached. "Again, there was no medical reason; they could only watch it happen," she says. "I was and I remain in excellent health. ... I would not speculate on any causes since no medical person would, even now."

Hogg has good light sensitivity, she says, and can locate windows. She senses vibrations. "We ran by a dog once that was on the other side of the fence," Daudt says. "He started this loud barking and Maureen said, 'Oh, firecrackers!'"

But most of her navigating on the running or skiing trails, or in the labyrinth of offices at Ball Aerospace is done by memory of the terrain or the floor plan and a walking cane.

On a recent weekday afternoon, Hogg's boss in Ball's communications department, Rachele Wood, stops in for a chat.

Wood taps Hogg gently on the shoulder, then reaches for her hand. "I can do print, cursive, anything, and

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Update on Conference Guide

By Fabien Vais, Montreal Chapter
AccessAbility SIG Manager

From the beginning, a major SIG initiative was to publish a conference guide for people with special needs. By describing the convention center in advance, and warning of possible obstacles, we strive to help anyone with any special need to find his or her way around easily and more comfortably. The guide is careful to take into consideration people with all kinds of limitations, including mobility, visual, hearing, and dietary.

The first guide was published for the Nashville conference (http://www.stcsig.org/sn/PDF/conference_guide_jun02.pdf), in 2002. This guide was modest but an excellent first step. For the Dallas conference (http://www.stcsig.org/sn/PDF/conference_guide_may03.pdf), in 2003, we published a much improved and more comprehensive guide. It was published first online, then in print for conference participants. The Dallas guide was so popular that all printed copies were picked up within three days.

The Guide for People with Special Needs for the Baltimore Conference is currently being prepared. I will be getting in touch with a few people the Baltimore area to explore the hotels, convention center, immediate vicinity of the conference, airport, and some tourist attractions. These will all be checked to see if they are accessible.

When all the information is compiled, a few people will work on text and layout. Photos, maps, charts, and any other pertinent information will be included. Finally, we will circulate the guide to editors within our SIG. When the final copy is approved by the STC Office and produced, we will upload it to the STC international Web site, as well as to our own SIG Web site. Then, we will contact all STC chapter presidents and/or chapter webmasters to ask them to add a link to our conference guide on their Web sites.

When the guide is available online, we will print copies to bring to Baltimore. I plan to arrive in Baltimore the day before the conference. I will spend a full day touring the facilities making sure everything in the guide is correct and no details were overlooked. I welcome anyone who wants to accompany me around the site on Saturday, May 8, 2004. Last year, four of us did this and discovered many inaccessible locations and misleading signs. In Baltimore, as in the past two conferences, we will publish any findings that merit mention in a brief Addendum printed onsite at the hotel business center. We will then insert this Addendum in the guide and place stacks of the guides at strategic places around the conference site.

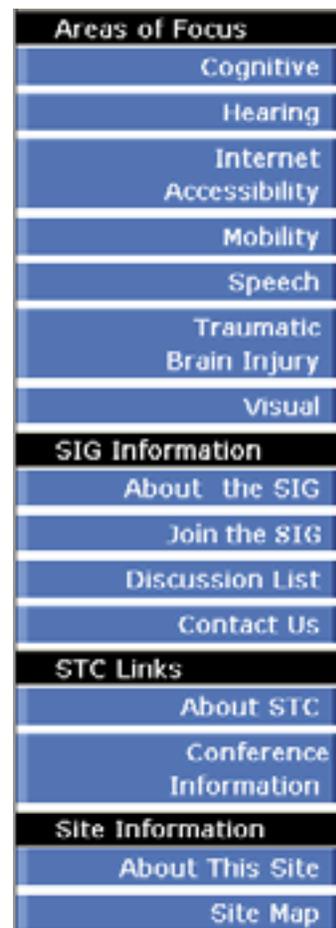
I look forward to seeing you all in Baltimore. 

Update on Web Site Redesign

By Mike Murray, Orlando Chapter



If you haven't seen our updated Web site lately, prepare to be impressed. The outstanding efforts of Cynthia Lockley and Leslie Reed have resulted in one of the highest quality, most content-rich and accessible sites anywhere!



Large type, generous use of white space, and an extremely user-friendly design are highlighted by large buttons at the top that format the site for optimal screen viewing, printing, large font printing, or translation by aural tools.

The more you dig into the content, the more you'll find. Under the four major headings of "Areas of Focus," "SIG Information," "STC Links," and "Site Information" is a well-hidden, easily-navigable wealth of information. Each sub-section begins with an "Introduction," "Recent and Relevant" topics (e.g., scholarship information, book reviews, "In the News," and more), and "Personal Stories" that will teach, inspire, and have you coming back for more!

It's all waiting for you at: <http://www.stcsig.org/sn/index.shtml> 



I Walk, I See, I Hear

By Jodi Shumway, University of North Texas

For years, 40 to be exact, my body has functioned in a way that is defined as normal in today's society. At least I thought it did. Although I've had two procedures on my left knee and nerves removed from both feet due to nerve damage, I am able to walk for hours at Six Flags without a problem. With the aid of bifocal lenses, I can see with 20/20 vision. And if I sit at the front of the classroom or church auditorium, I can hear just fine.

At least I thought my body was functioning "normally." That is until I started researching the hospitality tour spots that had been chosen for the STC's 50th Annual International Conference in Dallas, Texas. I discovered that there was one part of me that hadn't functioned "normally" until this spring-- my observation skills.

For 40 years I had taken no notice of the locations of ramps in public buildings, or the height or number of stairs, or if pay phones had instructions in Braille. It never occurred to me that a sitting area with 4 steps and no alternate ramp could mean the difference between a person with chronic fatigue syndrome being able to rest or having to walk another 20 feet to a sitting area with no steps. I never noticed if a sink in a public restroom was accessible or not for a person using a wheelchair or scooter. My, how things have changed for me since January!

I took on the challenge of writing the Special Needs SIG's *Conference Guide for People with Special Needs* (http://www.stcsig.org/sn/PDF/conference_guide_may03.pdf) for the Society's 50th International Conference in Dallas as a Mass Communication/Technical Writing internship project. What I learned about accessibility, the letter of the law and the spirit of the law, far outweighs the credit hours I will receive at the end of the semester.

When I began making trips to the Wyndham Anatole Hotel, the DFW Airport, and the Hospitality tour sites, I had a very abbreviated list of "things to investigate." On my initial list, I had restrooms, parking lots, signage, and stairs and elevators. After my second or third stop, I realized that there were so many more things that needed to be added. I added to my list things like desk height, visual obstructions, restroom plumbing, weight of doors, slopes, and thresholds. With each visit I added something new to my list of observances. I learned that there are companies and organizations that make their establishments ADA-compliant to the letter of the law and there are those who take it a step further and meet the spirit of the law, by trying to make their establishments user-friendly for everyone.

I did investigative tours for several weeks and made multiple stops at some of the places on my tour list. As we are now finishing the manual and getting it ready for the conference attendees to use, I realize there are probably many more things I could have investigated and included.

This project was supposed to be a learning experience for me, and what I learned is twofold:

- 1) Those of us who don't have to think about stairs, restrooms, room noise, elevator location, distances from one room to another, and so on, in some ways have a greater need than people who depend on a wheelchair or a hearing-aid. Our need is to have our eyes opened to the fact that the letter of the law isn't good enough when it comes to ADA compliance.
- 2) The Special Needs SIG is of vital importance to the Society for Technical Communication and to the business world in general, because we are the ones who can help companies and organizations realize the need to make their establishments step over the boundary from the letter of the law to the spirit of the law. 



The author is shown at left, joined by University of North Texas colleagues Jennifer Grant and Mel Haughton flanking professor Gail Lippincott of the Lone Star Chapter. The foursome was caught unaware by the paparazzi at an AccessAbility SIG medieval costume party at the conference in Dallas. The A-SIG had good cause to celebrate. In addition to the conference guide, it sponsored a very successful progression entitled "From Disabled to Enabled: Meeting Special Needs to Ensure Accessibility" (<http://www.stc-orlando.org/prodev/50notes/ASIG.asp>)

Walk in My Shoes...

Becoming an Advocate

By Kim McConnell
Central Ohio Chapter

In elementary school, I buried myself in books so I would not have to take a failing grade rather than stand up and speak in front of a class. In high school and college, I was much too shy to voice my opinion to others who were discussing current issues. I always chose to keep to myself and avoid making waves. I always chose to trust in others and to abide by their decisions. That thought process followed me well into my adulthood and even into parenthood ... until the day my youngest son was severely disabled in an accident.

On January 3, 1997, when my son, Matthew, was a walking, babbling 11-month old, our entire family's life changed in an instant. While I worked part-time as a technical communicator at a research organization, my two children were cared for by a woman who ran a daycare business out of her home. On that particular day, the provider left Matthew unattended in a highchair without the safety straps on. Matthew apparently tried to get out of the chair but slid down through the seat. His chin became caught on the tray of the highchair. This caused the back of his head to become wedged against the back of the chair. To put it bluntly, he hung himself.

By the time he was discovered and the paramedics arrived, Matthew had already passed away. It wasn't until an estimated 30-40 minutes later that a pulse was detected.

Because of the extensive amount of time without oxygen, though, he received severe and permanent brain damage. Matthew is now seven years old, yet developmentally he is more like a four-month old. He is profoundly mentally and physically disabled and requires 24-hour medical attention. We care for him at home with help from homecare nursing.

When our son's accident happened, not only did his needs change, but also our family's needs changed. I found myself wanting to find a "new normal" and to continue with our life as a family of four: myself, my husband Michael and our two children, Patrick and Matthew. Within a month after the accident, social workers, nurses, and doctors were all telling me that in order to establish



Meet the McConnells: Michael, Patrick, Kim, and Matthew.

this "new normal," I needed to become an advocate for Matthew's needs. Advocate? Me, an advocate? No way! In my mind, an advocate was an aggressive person who relentlessly fought for something they believed in. In other words, not me! But our family was blessed with a tremendous support system that ranged from family to friends to professionals who all offered their care and expertise. Through the combined efforts of this support system, I was given the resources and encouragement that I needed to learn how to advocate for my son's needs. I discovered that many of my present qualities and skills – both in my personal and professional lives – could be transferred into becoming the advocate that I needed to be.

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As the days turned into months after the accident, the value of applying my skills as a technical communicator to my new role as an advocate became more and more apparent.

Becoming an Advocate

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As the days turned into months after the accident, the value of applying my skills as a technical communicator to my new role as an advocate became more and more apparent. For example, I quickly learned to use my skills in needs analysis in a new way. Because of my son's multiple medical needs, each specialist tends to think that their issue is the most important and, therefore, requires immediate attention. At one point, if we were to do what each specialist wanted us to do, Matthew would have had four different surgeries within one year! But by using my skills in needs analysis, I am able to "interview" the specialist for more specific information about their position on the procedure in question. Then I can do my own research on the procedure, review the goals that we have for Matthew's outcome, and assess the importance and the overall impact. This is not unlike preparing for a major project at work.

Another example of using my technical communication skills is with scheduling and prioritizing. We all know how important this is, although we often struggle with doing it efficiently. Lucky for me, that is one of my strong points. And, boy-oh-boy, has that skill come in handy! It is not unusual for Matthew to have 6-8 medical/therapy appointments each month,

in addition to attending a special needs school five days a week. Then there is the task of scheduling the home care nursing, coordinating transportation, ordering medical supplies, and making follow-up calls to insurance companies and state agencies that provide services for our son. Additionally, we have an older son who is active in school and sports, my husband and I work different shifts (he works nights; I work days), and we are in the midst of litigation that is a result of our son's accident. I have become the multi-tasking, scheduling queen! No longer do I have one scheduling calendar – now I have four. And my skill for creating documents has been very helpful. I have created scheduling sheets, emergency packets, and communication bulletins for the nurses and therapists that frequent our home.

A third example is the use of my verbal communication skills. Shortly after our son's accident, speaking engagements began to regularly crop up, ranging

from church presentations to testifying before our state's Senate and House committees. Interviews were granted for television, magazines, and newspapers. Suddenly, the girl who would rather shove bamboo shoots under her fingernails than to speak before an audience was presenting an average of four times per year. Suddenly I found that speaking was easy before



Through it all, Matthew has been a ray of sunshine for his family.

crowds. No longer did I need to take that failing grade instead of sharing information with a group of people. Now, you can't shut me up! Give me a platform and I'll talk your ear off.

It has only been six years since Matthew's accident. Many things have changed and I fully realize that more changes will happen. We also live with the sober realization that our son will probably not live as long as if he were not disabled, but it only makes us appreciate him and our older son that much more. We have learned to live for the moment and to cherish each day. As I reflect on these past six years, I marvel at the evolution of myself from "Kim the Introvert" to "Kim

the Advocate." The process has included learning how to ask for help, reaching out to other families, fighting for what my son needs to succeed, and pursuing a "normal" life for our family.

Suddenly, the girl who would rather shove bamboo shoots under her fingernails than to speak before an audience was presenting an average of four times per year.

The irony in all of this goes back to that initial stereotype I had of an advocate. I have learned that there are all types of advocates – some more aggressive than others. But for the most part, the majority are people just like me. The irony? I now work for a state agency that advocates for the rights of Ohio citizens who have children with disabilities (<http://www.state.oh.us/olrs/fsc/>). My official job title is: Disability Rights Advocate. Me – a professional advocate! Never, in a million years, would I have thought that would be a job title for me. ☺

Stuckness and Low Vision

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work to create custom contact lenses for your daughter. With these lenses, your daughter can see, walk, and talk! So, the contacts for your daughter are like batteries to a Chatty Cathy doll. Nevertheless, your daughter's motor skill problems resurface as a result of a decline in visual acuity. During the first two years she wears contact lenses, daily variances in wearing time continue to create walking and speech difficulties. Moreover, acuity readings are not especially improved in either eye. By 1999, your daughter's vision continues to worsen (increased visual field loss), and doctors recommend a best-corrected, monovision solution. The evaluation is ongoing today.

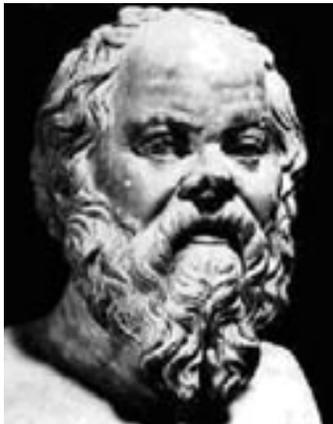
Hi! My name is G-L-O-R-I-A! That's my story! The popular country singer, Reba McIntyre, sums my situation up well in her hit song, "I'm a Survivor!" Now, I will share with you some stories from my own life that may be useful in helping Web page designers and product developers better understand issues surrounding low vision, hearing loss, and mobility restrictions using my "art of accommodation." In this article, I will discuss my "art of accommodation" as it applies to seven areas: (1) reading structural cues and wayfinding, (2) multimedia, (3) graphics, (4) text design and visual threshold, (5) contrast, (6) glare and size of electronic displays, and (7) mobility.

"Stuckness" Situation #1: Reading Structural Cues, and Wayfinding

Problem: Reading, Structural Cues, and Wayfinding. As I write this article, I recall vividly how I learned to read. In the 1960's, teachers used "reading groups" to assess students' progress in reading. Students in the groups were asked to read from a specified passage without error, using aids to mark their place and sounding out words during reading. The teacher usually began the readings with a student next to her (usually on the right) and went progressively around the group, with each person taking a turn, until the required reading was complete. These reading groups were problematic for me because I read very slowly and needed to place a pointer on the lines as I read them. Teachers complained to my parents about my reading skills and methods. My parents (also K-12 educators) spent countless hours working these issues with me. These sessions continued through most of the early grades until I learned how to accommodate for reading tasks. One day, during a reading group session, I noticed that teachers almost always started with the student on her right first and went progressively around the group until

the task was complete. The next day, I decided to change my seating in the group so that I would read last instead of first. When I made this change, I could "hear" the story as others read their assigned lines and point to the lines as they were being read by others. This strategy helped me because I had also learned that I suppressed my right eye during reading tasks, relying on my left eye. When it became my turn to read, I was already familiar with the text and story. (Both of my parents have Strabismus [forms that did not require surgery for the lazy eye condition]. My father also suppresses his right eye—consequently, here lies the double-whammy genetic connection for me!)

Some vision problems cause people to lose their place when reading from line to line (Reece, 2002). In my case, it was difficult to see the words on the page because I always saw my nose first (a result of the eyes crossing)! Another problem was that I was not allowed to place a pointer at the beginning of each line (establishes figure-ground) for keeping track of where lines begin and end. An additional problem that contributed to the reading situation was seeing more than one image of something (in this case, rows of text)—a result of the crossed or lazy eye.



Socrates

I continued using this accommodation strategy until I had a writing class with a new professor (Howard) at Florida Institute of Technology (<http://www.fit.edu>). Each term, I usually purchased my books for the upcoming term as soon as they hit the bookstore shelves (not later than the last week of class). In a sophomore-level writing class, this new instructor required us to purchase three books for the class. At this point, I anticipated a problem, yet I didn't know how to fix it. I decided to start with a discussion with the professor about the accuracy of the purchases and if all three books would be read during the course. The answer was "yes" to all of my questions. My next reply was this one, "I read very slowly; I need to start on the readings now so that I'll be prepared!" Before the conversation ended, the instructor talked me into putting the books aside until the start of classes the next term. I trusted his judgment and waited. Until now, I had satisfaction in becoming an educated, non-traditional student. Now, I had some uncertainty about the outcome.

I attended Howard's classes that next term and excelled at many reading tasks! Howard's use of Socratic dialogue in class discussions taught me more about critical thinking

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Stuckness and Low Vision

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and how to solve real-life problems than any class I had ever taken. His encouragement for us to infuse technology into our writing process was also helpful. For the first time in my life, I could “see” and “hear” the words on the page and write (and revise) responses to my readings. He gave structural pointers (chunking, queueing, filtering, mixed mode (lists, tables, figures), abstracting (layout)) to information in the text that allowed me to develop better

“It’s OK to mark up your book. Make it your own.”

wayfinding strategies for locating information in dense text. His exceptional dialogue with students helped me keep pace when eyestrain hit, and he frequently said to me, “It’s okay to mark up your book. Make it your own!” By the end of this class, I was taking my first two baby steps again—learning how to read and write!

Today, I continue to use the strategies that I learned in Howard’s class. As I write this article, I have successfully graduated from my doctoral program in Instruction Curriculum Leadership with a concentration in Instructional Design and Technology at The University of Memphis (<http://www.memphis.edu>) and have completed an empirical, clinical study entitled, “Text Legibility for Web documents and Low Vision” (available in Dissertation Abstracts) (Reece, 2002).

Current Strategy. My first step in reading an online document is to assess its structure by asking the question, “Where does the document begin and end?” “What’s in the middle?” “Stuckness” occurs when entry points are not clear. When using word processing tools, I establish a figure-ground connection with the words on the page and the background. Sometimes, I use the toolbar rulers or non-printing characters. (See also the section on “Contrast.”)

“Stuckness” Situation #2: Multimedia

In general, computer-driven multimedia are difficult for me due to the use of animation and low clarity. For example, videos need to be very clear in both sound and image before they are useful. Since I rely on lip reading to understand a conversation, a lack of clarity in image can impede communication. If I am looking at a video of someone giving a presentation, the image and actions in the clip must be extremely clear. If the person reads or looks away from the audience (me), there is too much opportunity for confusion about the communication. Lack of sound clarity can also be problematic, as my ability to hear

clearly fluctuates with my mode of visual accommodation. Conversely, music played loudly on the computer via CD is the most relaxing method that I can use to relieve pain from visual and mobility stress.

“Stuckness” Situation #3: Graphics

Problem: Multidimensional Images. While in Florida (mid 1980’s to 1994), I had an opportunity to design a logo for a small business owner. The owner wanted a simple logo to match the name of his business, “Fulcrum Associates.” The first graphic that came to my mind was a fulcrum. All of the textbook examples seemed to be objects—circles, lines, and triangles. With textbook in hand and an object-oriented drawing tool launched on the computer, I created my own version of a fulcrum for the logo in three variations and asked for a preliminary opinion from one of my professors (Carol). After reviewing the materials, she asked, “Gloria, why don’t you try a 2- or 3-dimensional image?” On the way to the computer lab, I kept asking, “What is 2-D or 3-D?” I decided to have a conversation with my husband John, an electrical engineer (<http://www.mercer.edu>) on a subject that I called, “Drawing for Dummies.” I showed him my logo examples and asked him to explain the concept of 2-D and 3-D images. For the first time in our married life (now nearly 23 years), he realized that I could not perceive depth. Strabismus has an impact on one’s ability to see depth. With his help and an electronic drawing tool, I was able to successfully create a logo for the client.

Current Strategy. Today, there is a lot of hoopla about creating multidimensional images for Web pages. In cases like mine, fancy graphics may not matter. Rather, alternative text descriptions (“Alt” text) are more helpful. Blind engineering students at the University of California at Berkley are developing a computerized drawing program that allows people with vision problems to create and “see” graphics on-screen (<http://www.upi.com/view.cfm?StoryID=29062002-013151-6549r>).



Problem: Text on Curves. Web pages and some applications that contain circular objects using reverse print on small circles containing color (like M&M candies) for key navigational elements (e.g., menu names) are also difficult to read.

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Stuckness and Low Vision

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Current Strategy. People with vision problems may perform such tasks very slowly because they may first need to train their eyes to follow the circumference of the circle in order to “visualize” the background object and extract its meaningful content—the text message (e.g., “File Menu”).

Problem: Text that Blinks and Moves. Web pages that contain moving and blinking text leave me bewildered and asking this question: “Can people read those moving and blinking objects that fast?” Since I read with one eye, moving objects and blinking text are very difficult to process because they change before they can be seen!

Current Strategy. Be proactive about the situation and ask for help.

Problem: Menus. Lengthy pull-down and right-extending types of menus are problematic for me due to the fine motor skills that are required to use them. Oftentimes, it requires multiple attempts to complete a single task.

Current Strategy. Explore keyboard shortcuts or link alternatives. When all else fails, ask for help.

Editor’s Note: Be sure to watch for the conclusion of Gloria’s story in the next edition of *Achieve!*, when she will discuss “stuckness” situations 4 through 7 and reveal her conclusions and recommendations. 

Did You Forget?

To renew your A-SIG membership, that is? It’s not too late. The Society purges its SIG rosters in March based on the membership renewals. If you forgot to check the A-SIG box when you renewed your STC membership, you can still “re-up” with the A-SIG and continue to receive *Achieve!* The form is at:

http://www.stc.org/PDF_Files/sigform.pdf

Please Don't Leave Us!

Special Needs Airline Hotline

Contributed by Kim McConnell from a Listserv

The U.S. Department of Transportation is calling on all disability organizations to promote public education about its Toll Free Hotline for air travelers with disabilities through its organizational newsletters, list-serves, flyers, and sponsored events.

The Toll Free Hotline for disabled air travelers has been in operation since August 2002 and is available for callers from 7 a.m. to 11 p.m. Eastern Time, seven days a week. It is currently not being fully utilized. The Hotline serves two main purposes: (1) education and (2) assistance in resolving disability-related air travel problems.

Many air travelers with disabilities are not aware of their rights, and the Hotline, in part, exists as an educational service to inform them about their rights under the Air Carrier Access Act and the Department’s implementing regulations 14 CFR Part 382 (Part 382). Hotline operators are well versed in the ACAA and Part 382 and can provide callers with on-the-spot information about the rights of air travelers with disabilities. Operators also respond to requests for printed consumer information about air travel rights of the disabled.

The Hotline can also assist air travelers with disabilities in resolving real-time or upcoming issues with air carriers. The purpose of “real-time” assistance is to facilitate airline compliance with DOT’s rules by suggesting alternative customer-service solutions. The airline remains responsible for deciding what action will be taken to resolve the issue in accordance with the ACAA and Part 382. Generally, if a caller has a real-time problem or an upcoming issue with an air carrier, a Hotline Duty Officer will contact that air carrier and attempt to resolve the issue. For example, Hotline Duty Officers have contacted air carriers and convinced them to accept service animals and electric wheelchairs on flights, stow folding wheelchairs in the cabin, and provide wheelchair assistance.

Air travelers who want information about the rights of persons with disabilities in air travel or who experience disability-related air travel service problems may call the Hotline to obtain assistance at: 1-800-778-4838 (voice) or 1-800-455-9880 (TTY). Air travelers who want DOT to investigate a complaint about a disability-related issue still must submit their complaint in writing via e-mail at airconsumer@ost.dot.gov or postal mail to:
Aviation Consumer Protection Division
U.S. Department of Transportation
400 7th Street, S.W.
Washington, D.C. 20590

To request Hotline flyers to distribute to your members, contact 202-366-1617 (voice) or 202-366-0511 (TTY). 

Potential New Market for Technical Communicators

New Accessible Web Design Program Makes Debut at Northeastern University

By P.J. Gardner and Lori Gillen
Boston Chapter



Web accessibility is a hot topic, and now there is a brand new place

to gain the knowledge and credentials you need to succeed in this increasingly important field.

[Northeastern University](#), in Boston, Massachusetts, already well known for its technical writing program, is now offering a graduate certificate program in Interactive Design. This new program, one of the first in its kind, focuses on web accessibility and design for interactive media.

The new program is the brainchild of Rose A. Doherty, Assistant Dean and Director of Liberal Arts and Criminal Justice Programs. “My interest in this area was ignited by a 1999 article in the Chronicle of Higher Education titled “Interactive Design: a Profession in Search of Professional Education,” declared Doherty. “In the article, Janet H. Murray, who was then at MIT, points out that work in interactive design is distinct from computer programming and from visual design. She asserts that these new professionals

will need visual and verbal skills and an understanding of cognitive processes.”

Doherty added: “We added the accessibility focus to the graduate certificate because we realized that designing for universal use would (1) give people with disabilities improved access to everything the Web has to offer; (2) make good business sense for everyone; and (3) give professional technical writers, graphic designers, programmers, e-business managers, and others an additional skill to offer an employer.”

The four-course graduate certificate program teaches information delivery professionals the principles of designing accessible human-computer interfaces. These interfaces anticipate the needs of the growing number of people who need accessible accommodations and create more universal Web sites.

As the course catalog states, the program helps technical communicators to:

- Develop skills to help your organization reach more people more effectively.
- Learn to apply the cognitive theory behind all human-

computer interaction.

- Apply communication theory to writing and designing for interactive Web sites.
- Make federal and private accessibility guidelines work for your organization.
- Discover how functioning as part of a professional interactive design team will leverage skills for your career growth.

The Interactive Design program consists of two conceptual courses, “Communication for Interactive Media” and “Human Factors and Interactive Design”, and two hands-on courses, “Accessibility and Interactive Technologies” and “Interactive Project Development.” Brief course descriptions are as follows:

- “Communication for Interactive Media” focuses on the relationship between communication principles and interactive design, and on making information more accessible to a wide range of audiences.

“... the accessibility ... graduate certificate ... give[s]” professional technical writers [and] graphic designers ... an additional skill to offer an employer.”

-Rose A. Doherty
Assistant Dean

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Designing Accessible Web Sites

By Jodie Gilmore
Willamette Valley Chapter

Editor's Note: Reprinted from the Willamette Galley, March 2003.

Can a blind person read the information on your Web site? Can a person with no hands navigate your Web site easily? There are compelling reasons why you should care about the answers to these questions.

Web Users with Disabilities Represent a Significant Market Share

Making your site accessible provides you benefits both in added customers and better public relations. At least sixteen million people in the U.S. have hearing or vision problems, and a growing number of aging people experience significantly limited sight, hearing, and manual dexterity. Consider the following Web users:

- Online shoppers with color blindness – can they see red-colored sales prices?
- Online students who are deaf – can they hear multimedia video?
- Retirees with macular degeneration – if they magnify the screen, is the information still navigable?
- Teenagers with significant loss of both sight and hearing – can they find the restaurants and bus schedules they need? Can they download restaurant menus in Braille format?
- Online library users with no hands – can they easily search for a book, using voice-recognition software?

Judy Brewer, Director of the Web Accessibility Initiative International Program Office pointed out, “With close to 20% of the U.S. population having disabilities...companies that forgo design for accessibility inadvertently throw away part of their marketplace.”

Accessible Design Benefits Other Audiences, Too

The same design techniques that make information accessible to people with disabilities offer significant advantages for other audiences. As Tom Morrissey, a Web designer in Colorado (who happens to be also visually impaired), pointed out, accessible Web sites have faster download times and facilitate transmission of Web-based data to cell phones, palm devices, and personal digital



assistants (PDAs). An accessible site is more likely to be compatible with a greater number of browsers, as well.

Accessible Web sites are also more easily processed by search engines. For example, a site that captions for audio not only benefits deaf users, but also increases the efficiency of indexing and searching for audio content on the Web.

Finally, designing an accessible Web site requires you to think of your site as a logical entity. According to Morrissey, “glitz is usually just a cover for no content.” A site that is easily accessed by the disabled is also a coherent site that has the right information in the right places.

Americans with Disabilities Act Is Increasingly Relevant to Private Web Sites

The precedents are being set for applying the ADA to private Web sites. By implementing accessibility, you limit your company's exposure to future legal action.

Consider the following events:

- In 2000, a blind Australian filed a complaint with the Australian Human Rights and Equal Opportunities Commission because he found the Sydney Olympics 2000 Web site inaccessible.

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Designing Accessible Web Sites

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- On February 9, 2000, the Subcommittee on the Constitution convened to hear “The Applicability of the ADA to Private Internet Sites.”
- Also in 2000, the National Federation of the Blind brought suit against AOL for accessibility problems. The case was later dismissed by mutual agreement, but the NFB retained rights to renew their action against AOL, if necessary.
- On June 21, 2001, a report titled “The Accessible Future” was released by the National Council on Disability (NCD). This report cites to the work of Cynthia Waddell, who is on the Advisory Board of the International Center for Disability Resources on the Internet. Waddell is a prominent proponent of applying the ADA to the World Wide Web.
- In 1996, a person with a mental illness (a disability) sued a private on-line bridge club (Hooks vs. OKBridge). In this landmark case, the Dept. of Justice (DOJ) clearly indicated that the ADA applied to Internet transactions. Although Hooks lost the case due to technicalities, the decision that the ADA applies to the Internet as a “place of public accommodation” still stands.

Although the DOJ has yet to follow up on their interpretation by adding specific references to the Internet or e-commerce to its regulations, most people consider it only a matter of time.

A truly accessible Web site can interact, or at least not interfere, with many of the following assistive technologies:

- Screen readers
- Screen magnifiers
- Voice-recognition software
- Alternative keyboards, switches, and mouse devices (such as head mouse, head pointer, or mouth stick)
- Scanning software (that announces verbally the information displayed on the screen)

Ten Tips for Accessible Web Design

These ten tips will help you design accessible Web sites:

1. **Use style sheets to control layout and presentation.** Allow users to override the default style sheet so they can configure information to suit their needs. For information on building user-controlled style sheets, see <http://www.webmasterbase.com/article.php/1009>. This is part of a very useful web site called SitePoint.

2. **Use color with common sense.** Ensure that all information conveyed with color is also available without color (e.g., from context). Ensure foreground and background color combinations contrast sufficiently. A useful tool for choosing colors resides at <http://www.webtemplates.com/colors/index.html>.
3. **Support keyboard access.** Provide keyboard shortcuts to important links, form controls, and hot-spots. Allow users to create keyboard shortcuts.
4. **Provide a text equivalent for every non-text element by using the ALT or LONGDESC tags.** These elements include sounds, audio files, audio tracks of video, and video. Avoid labels that are cryptic when read out of context, like “Click Here!” Create a text-only version of the page and place a link to it at the top of the graphical version.
5. **Label information.** Use column and row headers in tables. Label frames and form fields. Consider using buttons instead of image maps, or at least provide the links elsewhere on the page to ensure accessibility. Online forms benefit greatly from correct use of the <label> tag. Check out the following link for tips on designing accessible forms: <http://www.webmasterbase.com/article/978>.
6. **Give users control over content.** Allow users to slow the presentation rate of audio, video, and animations. Allow users to freeze moving content and scrolling text. Avoid auto-refreshing pages.
7. **Ensure that text, navigation mechanisms, and style of presentation are consistent across all pages.**
8. **Avoid or provide alternative content for scripts, applets, and plug-ins.**
9. **Avoid potentially annoying text attributes** such as blink, or allow users to turn these attributes off.
10. **Test your design.** Perform usability testing with disabled users. If that is not feasible, use the tools available at <http://bobby.cast.org/bobby>. The Bobby site analyzes a Web page and provides a report on where accessibility might be improved. You can also see how a text-based browser will display your site by visiting <http://www.delorie.com/web/lynxview.html>.

If nothing else, provide alternate accessible formats, such as Braille, large print, and/or audio materials. Note the availability of such materials in a text (i.e., screen-readable)

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Designing Accessible Web Sites

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format on the Web page, along with instructions for obtaining the materials.

Jodie Gilmore has been an STC member for 15 years. Accessibility is a topic dear to her heart, as she is legally blind. Owner of Fulcrum Communications, a technical writing and web development company, Gilmore can be reached at jgilmore@fulcrumcomm.com. In addition to being a tech writer, she also is the proud Mom of two children (3 and 5 years) and owner and steward of a small organic farm in the foothills of the Cascade Mountains. 

New Accessibility Program at NEU

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- “Accessibility and Interactive Technologies” relates design principles to interactive sites through analysis of existing sites and the development of individual and group sites. The course pays special attention to using adaptive technologies to enhance accessibility.
- “Human Factors and Interactive Design” presents how humans and computers interact by exploring human cognitive processes, and examines how disabilities affect human-computer interaction.
- “Interactive Project Development” considers the coordination and collaborative efforts of cross-functional teams in creating effective accessible interactive projects.

Neil F. Duane, Technical Communications Consultant and advisor and instructor of “Accessibility and Interactive Technologies,” put it this way: “Completion of the certificate courses will prepare and encourage our technical writers, programmers, and designers to address interactive design and accessibility for the first time as a collaborative endeavor. This is a unique concept that should find wide acceptance within the ranks of graduate professionals.”

A variety of motivations bring people to this program. After a career in technical communications, P.J. Gardner formed her own business developing accessible Web sites. Said PJ: “There are so many tradeoffs in balancing accessibility, browser compatibility, and good design principles, I want to absorb as much as I can so I can do a better job of meeting people’s needs in delivering and viewing information using Web technologies.”

Lucille Blaschke, who developed Web content for an audience over 50 at AARP for several years, was motivated in addressing accessibility issues that affect Internet users

as they age. “The more research I did, and as I age myself, the more interested I became in Web accessibility,” Lucille declared. “It is important to address the issues aging Internet users are facing to retain our audience.”

Anne Russo-Quinn, a visual designer with extensive experience in paper-based and online communications, wants to increase her understanding of the needs of people with disabilities and to communicate ideas more effectively. Anne outlined her goals: “I’m hoping this program will fill the gaps in my understanding of the needs of end users and also communicating successfully to my intended audience.”

Due to her own hearing loss, Lori Gillen, founder of the Boston chapter of the STC’s Special Needs SIG, is passionate about raising awareness concerning the barriers that people with disabilities experience in processing information every day. “My mission is to spare people the pain that I suffered through the years when I blamed myself totally for all the wrongdoing of bad design,” she said.

This brand new program has just completed its first course, “Communication for Interactive Media,” taught by Michael J. Salvo, Ass’t. Prof. in English at Northeastern University.



Asked about his primary course objective, Salvo replied: “Professional communicators often represent users in the process of designing and developing technology, charging us with ethical responsibilities to accurately and meaningfully assert user needs during technological development. I want students to think beyond technology-centered development and towards human-centered development of technology.”

Now that the students have completed their first course, they are eager to continue examining how universal design principles can be applied to creating more accessible and usable information products, and in advocating for the value of accessibility in the workplace.

Salvo foresees a robust job market down the road for technical communicators with expertise in accessibility. “I think the market for writers and designers with expertise in accessibility will grow, and with it, the need for experts trained in accessibility issues,” he predicted. 

MAUREEN'S AWARDS

- Outstanding History Major of the Year, U. of Northern Colorado, '76
- Hazel E. Johnson Awd. for Colorado History, U. of N. Colo., '78
- 1980 Ball Corp. Newsletter Editors Contest - Hon. Mention for BASD Newsletter/Wire from Western Labs
- 1982 Ball Corporation Newsletter Editors Contest - Best Total Publication for Printed Newsletters
- Best Human Interest Feature (There's Nothing Like an Optimist - Look at Things Optimistically)
- 1983 Ball Corp. Newsletter Editors Contest - Best Total Pub. in Printed Newsletters (May & June '83)
- Best Human Interest Feature (JA Is More Than a Successful Business)
- 1981-1982 RMC/STC Annual Comm. Contest - Award of Distinction (1st place) for Newsletters/House Organs (BASD Newsletter, July 1981)
- Award of Merit (fourth place) in Marketing Lit./Tech. Illus. (for COMPTEL & OSSE data sheets)
- 1982-1983 RMC/STC Comm. Contest - Award of Achievement (third place) in Newsletters (1981 BASD Good News)
- 1983-1984 RMC/STC Annual Comm. Contest - Award of Achievement for Mktg. Brochure (ERBS Booklet - 1st Edition) & Awd. of Achieve. for Tech. Article (IRAS: Exploring the Mysteries of Space. Ball Line, June '83)
- Trail Blazer Alumna Award, U. of Northern Colorado, 1985
- Women In Comm./Woman of Achievement Award for Advertising/Public Relations, 1992
- NASA Group Achievement Award for the Hubble Space Telescope First Servicing Mission/Corr. Optics Space Telescope Axial Replacement, 1994
- 1997-1998 RMC/STC Annual Communications Contest - Award of Achievement in Informational Materials (1997 BATC Group Viewgraphs and Annotations)
- 1998-1999 RMC/STC Annual Communications Contest—Award of Achievement in Informational Materials ("It's a Small World." EXPLORE. July 1998)
- Listed in the 1986 Register of American Business Writers, ISBN #D93803901-6.
- Listed in the 21st edition of Marquis' "Who's Who in the West", July 1987, L.C. # 49-48186.

World Wide Open

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Maureen will know what I am saying," Wood says.

Wood leaves and Hogg goes back to reading a memo on a recent space mission success. It's her job to edit and write articles on Ball's space programs for inhouse memos and publications. She's won numerous awards, including a plaque for publicizing the Corrected Optics Space Telescope Axial Replant Team that repaired NASA's Hubble Space Telescope. "We corrected Hubble's eyesight," Wood says.

Hogg scans papers using an Optacon (Optical to Tactile Converter), a handheld camera the size of a finger, which transfers each printed letter into a vibration. Hogg "reads" each word with her left fingertip inside a wooden box. It's a prickly buzz that can be controlled by a dial for intensity. "I'm actually reading the shape of the letter," she says.

Hogg also uses a telephone conversion system that turns numbered keys into Braille letters. It's not a problem that there are three letters to one number, Hogg says. There's a Braille code. For a caller to select A, for example, he just has to first press the star sign. And finally, the coup d'etat: SuperBraille. Hogg reads e-mails and other computer files, from left to right, as words scroll across a finger pad below the keyboard. "If anyone had told me years ago that this would be possible, I wouldn't have believed them," she says.

Ball hired Hogg 25 years ago to translate French for colleagues in North Africa and Algeria. She studied French in high school before she lost her senses and minored in French at the University of Northern Colorado in Greeley. History was her major. "They hired me in spite of the disability, not because of it," she says. "That is enlightened management."



Maureen demonstrates to her Rocky Mountain Chapter colleagues how she uses the Optacon and other assistive technologies to communicate and perform her job.

Hogg's direct supervisor, Karen Ruth, says Hogg is an integral member of the communications team and she has an incredible memory of space missions and programs. "She's our historical guru," Ruth says.

Upgrading technology, whether it is a Braille system or a Palm Pilot, is part of an employer's job, Ruth says. "If you have an employee who is intelligent and valued, you give them what they need," she says. "We don't have to go out of our way for Maureen. Other than making sure there are

no obstacles in the hallway, she is treated like any other person in the company."

Hogg broke high school barriers when officials told her parents she would fail if she stayed at Louisville High School, which later became Centaurus High School. Hogg became the first person in the state to be blind and deaf and attend public high

school. Her mother and volunteers worked tirelessly, translating texts into Braille. Hogg learned the system in six weeks and ranked in the top 10 percent nationally in the ACT in science and social sciences, graduating fourth in her class.

In a 1973 *Daily Camera* article, the year of her graduation, Hogg's mother told the reporter that her daughter does not believe in removing people with disabilities from schools and limiting their choices. "She'll probably fight it all her life," her mother said.

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Humor Helps!

Editor's Note: *Because I often use humor to help me keep a positive outlook on life, I was especially delighted to read a string that was recently posted on the A-SIG e-mail listing by Kathy Bine of the Washington, D.C., chapter; Jodie Gilmore of the Willamette Valley chapter, and Lori Gillen of the Boston chapter. I've reprinted it here as a reminder for all of us. Thanks to Kathy, Jodie, and Lori for this important life lesson on how to keep things in perspective.*

From Kathy Bine:

I had double vision for about two weeks, which was annoying and sometimes scary (crossing the street was terrifying), but often a source for laughter, too.

My sister took me to the ophthalmologist, since I had double vision and didn't dare drive. We waited for about 10 minutes, then Jenny said, "I see a doctor."

"I do too," said I, and I did see something flapping white coming our way.

"He looks really cute," she said.

"And I'm seeing two of him," I said. I don't think that the ophthalmologist knew why we were laughing so hard!

From Jodie Gilmore:

I think if we don't see the humor in life, we are missing something very important. There is distinctly something amusing about my mistaking cows for stumps, and stumps for cows, as we drive by fields. And the day I spent more than 15 minutes calling a paper bag in my mom's garden because I thought it was her yellow cat was definitely funny! (For some reason, the bag refused to come.) Laugh, and the world laughs with you...

From Lori Gillen:

I've got one. I wrote mail to one of the project managers asking her how many reports were in a document. Three or four days later, I saw her in the kitchen. She looked at me and said, "Henry Ford." I asked, "Henry Ford?" She said, "No, I said ten reports."

No wonder I enjoy hanging around you folks so much! ☺

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And she did. At college, Hogg remained independent with the use of her Braille checkbook and an alarm clock whose buzz vibrated her arm. Without a guide dog, she relied on passersby to help her through intersections. Hogg graduated UNC magna cum laude in 1977 with a 3.5 average.

"For what it is worth, my IQ tested out at age 17 at 127," she says. "At that time, I had a 'Grade 17' vocabulary,

which meant I could have graduated in 1972 and entered college, even qualified for graduate school, at least in terms of language skill ability. ...Incidentally, I don't place much stock in IQ tests."

Hogg is very bright. She can converse with two people writing on both hands at the same time, says her running partner Daudt, who calls his sloppy script "palm graffiti." She's also very humble and quiet when it comes to her personal life. After 20 years of running together, last week was the first time Daudt found out about Hogg's family roots in Boulder County. "I'm fifth generation," she tells her friend. Her mother's family were pioneers from Superior, Wis., who came here in 1860 and founded the town of Superior.

Hogg gently holds Daudt's elbow with her left arm, as they run in step back to work. "Maureen is just so inspirational," says Daudt, a technical manager who has been at Ball for 25 years. "I just cannot ever be in a bad mood when I'm around Maureen."

He stops at a curb to let her know it's time to step down. She tells him to pick up the pace. "To have such a positive attitude when she has the same disabilities as Helen Keller, I have to wonder if in modern times it's easier or maybe it's harder. I can't fathom it." ☺

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