DO-IT NEWS

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Director's Digressions -

by Sheryl Burgstahler

Meet the 2007 Scholars:

This summer DO-IT will host its annual Summer Study program for *DO-IT Scholars*. Primary funding for the *DO-IT Scholars* program is provided by the State of Washington.

To reduce printing costs and yet still share exciting news from DO-IT, we provide a short print version of DO-IT NEWS and an expanded version online at http://www.washington.edu/doit/Newsletters/Jul07/. Contact DO-IT if you would like a printed copy of the expanded newsletter.

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Additional funding for *Scholar* activities is provided by Microsoft, the National Science Foundation, and the Boeing Company. For information about *DO-IT Scholars*, consult *http://www.washington.edu/doit/Brochures/Programs/Scholars.html*.



DO-IT Director Sheryl Burgstahler enjoys a bike ride with '05 Scholar Jessie.

We welcome the following '07 Scholars. All are residents of Washington and most will be sophomores, juniors, or seniors in high school this fall.

Heidi lives in Redmond. She enjoys school; her favorite classes overall are history and advanced technology. Heidi, who has Asperger's Syndrome, would like to learn Japanese, get a college degree in comparative literature, and someday write a book.

Robyn, who has hearing loss, lives in Lake Forest Park. Her two favorite subjects are science and math. Robyn has a goal of finishing high school with a 4.0 GPA and plans to go to college to major in physical therapy or sports medicine.

Ashlee lives in Poulsbo. She enjoys English and science and likes to learn about the earth and living things. Ashlee, who has a visual impairment, also finds writing to be a great form of self-expression. She plans to get her master's degree in psychology.

Blake, who has Cerebral Palsy, lives in Olympia. His favorite class is advanced band. Blake is a percussionist; he usually plays the bass. Blake plans to study forensic science.

Sara lives in Mountlake Terrace. Her favorite subjects are English (especially literature) and French. Sara, who has a visual impairment, plans to get a four-year degree and work in public relations.

Dylan lives in Langley. He received a Most Inspirational Student award this year. Dylan, who has a mobility impairment, enjoys math and Spanish. Dylan would like to go to college and study in an area where he can use both his social and computer skills.

Sam B. lives in Seattle. His favorite subjects are math and science, because they are both straightforward areas that have exact answers. Sam loves sports and plans to go to college. His ambitions include a career as a baseball or basketball coach or a sports announcer.

Corey R., who has a mobility impairment, lives in Snohomish. His favorite subjects are math (as he likes numbers and it comes easily to him) and history. Corey would like to become a game designer or developer.

Luke lives in University Place. His favorite subjects are science and math. Luke, who has Attention Deficit Disorder (ADD), wants to become either a game tester or a marine biologist.

Fiona, who has Attention Deficit Disorder (ADD), lives in Bellevue. Her favorite subjects are science and foreign languages. She loves being able to communicate with others and learning about their cultures. Fiona is leaning toward studying reptiles, fish, and birds in college and has volunteered for the last four years at the King County Humane Society.

Peter lives in Walla Walla. His favorite subjects are math, science, and history. Peter, who has Attention Deficit Hyperactivity Disorder (ADHA) and Obsessive Compulsive Disorder (OCD), would like to have a career creating computer software for the gaming and entertainment industries.

Stefani lives in Lamont. She has been involved in drama, sports, and honors band. Her favorite classes are German and geography, which help widen her views of the world. In college, Stefani would like to major in computer graphic design and minor in music.

Scott lives in Anacortes. His favorite courses are math and physical education. He enjoys all sports and is skilled at tennis, soccer, and bowling. Scott plans to attend Skagit Valley College and go into their Parks Services and Protection program.

Shyla, who has a mobility impairment and a learning disability, lives in Yakima. Her favorite classes include language arts and math. Shyla likes using her imagination to write creative stories, and she plans to go to college and find a career that uses her skills.

Megan, who has Tourette Syndrome, is from Bellevue. Her favorite subjects are art and English. She enjoys reading and writing and

is inspired by all forms of art. Megan wants to find an area of study and a career where she can use her talents and skills to help others.

Joshua lives in Raymond. His favorite subjects are math, literature, and history. One of his greatest passions is reading historical stories and poems. Joshua plans to get a degree in computer programming and become a video game designer.

Lukas, who has high-level Autism, lives in Selah. His favorite subjects are science and music. Lukas would like to graduate from college with a degree that allows him to work with animals.

Melissa lives in Woodinville. Her favorite classes are math and English. Melissa, who has a mobility impairment, enjoys reading, writing, and playing wheelchair basketball. She plans to get a degree in English and become an English teacher.

Cory M., who has Asperger's Syndrome, lives in Poulsbo. Corey's two favorite classes are history and English. He would like to earn a Ph.D. in political science and work in politics.

Samuel M. lives in Kingston. His two favorite classes are social studies and math. Samuel has Cerebral Palsy and a learning disability. He plans to study aeronautical engineering and become a pilot.

Elizabeth lives in Snohomish. Her favorite classes are science and choir. Elizabeth's interest in science stems from her love of animals. She would like to become a veterinarian or work professionally with horses.

We look forward to working with these teens during Summer Study 2007!



DO-IT Ambassadors Head to Tokyo by Tamitha Tidwell, DO-IT Staff

This summer, for the first time, there will be a DO-IT Summer Study in Japan! Dr. Mamoru Iwabuchi

(pictured above) is our partner in Japan. Many of you remember Mamoru from his year at the DO-IT center as a Visiting Scholar and his participation in Summer Study 2004. Dr. Iwabuchi is coordinating a week-long program (July 25-29) at the University of Tokyo for ten high school students with disabilities. Two DO-IT Ambassadors from Seattle, Chris S. and Stuart O., will be heading to Japan as Summer Study Interns to help in this very exciting Summer Study in Japan. Chris and Stuart are both looking forward to a week of hard work and adventure.

Summer Study in Japan will be very similar to the American experience. The Japan *DO-IT Scholars* will "meet" many of the U.S. *DO-IT Scholars* through our many videos. In addition, a panel of Washington *DO-IT Scholars* and *Ambassadors* will participate in the Japan session by meeting with the participants using iChat. The *Scholars* will visit Microsoft in Tokyo. There will be many guest lecturers from the University and community as well as hands-on computer activities.

To see the great things happening with our partners in Tokyo, check out the DO-IT Japan website at *http://doit-japan.org*.

DO-IT Participants Have Fun at the UW College of Engineering Open House

by Scott Bellman, DO-IT Staff

On April 28, DO-IT students took time out of their busy schedules to explore the future of engineering and science at the University of Washington College of Engineering (COE) Open House! DO-IT hosted a pizza party which was attended by *Scholars*, DO-IT staff, and a group of students from DO-IT's High School/High Tech collaboration with the Seattle Youth Employment Program. About thirty DO-IT friends ate pizza, cake, and salad while door prizes were distributed.

The COE Open House is a time when UW engineering departments open their doors to the public. They offer hands-on activities in exhibits that are staffed by graduate students, volunteers, and professors. Some of the exhibits featured liquid nitrogen ice cream, computer simulations, robotic fish, wind tunnel demonstrations, water rockets, biomaterial manipulations, and nanoscience experiments.

Michael Richardson, DO-IT Program
Manager, was especially excited about the
emergence of Professor Richard Ladner's
Mobile ASL project, which puts modern video
compression on cell phones to enable the use
of American Sign Language (ASL) between
users who are deaf. "There are a lot of advantages to using ASL to talk to a friend, as compared to text messaging," explains Michael.
"Richard's project holds a lot of potential for
the deaf community and is a good example of
modifying developing technology for use by
people with disabilities. This kind of technology makes the COE Open House a lot of fun
for me."

The COE Open House was attended by over 7,000 teachers, students, alumni, friends, and family. For more information consult *http://www.engr.washington.edu/openhouse/*.

North to the Future!

by Scott Bellman, DO-IT Staff

Do you know the official motto for the state of Alaska? You guessed it—"North to the future!" With that fun motto in mind, DO-IT staff have been collaborating with partners in Alaska as part of the DO-IT AccessSTEM project to increase the number of students with disabilities pursuing careers in STEM fields. STEM stands for science, technology, engineering, and mathematics. In 2006, several Alaskan students participated in paid STEM internships. They worked at places such as the National Oceanographic and Atmospheric Administration (NOAA), a volcano observatory, Alaska Fish and Game, the Alaska Museum of Natural History, an adaptive technology computer lab, and the University of Alaska campuses.

During the first week of May, DO-IT Project Coordinator Lisa Stewart and I headed north to support recent activities in Alaska. We worked with K-12 educators, college faculty, students, and disability service providers to support activities such as

- high school "Transition to STEM"
 workshops on the University of Alaska
 Anchorage (UAA) and Fairbanks (UAF)
 campuses attended by forty-two high
 school students with disabilities;
- a STEM faculty information session about supporting students with disabilities in the sciences, attended by thirty faculty members on the UAF campus; and
- meetings with individual students to discuss paid STEM internship opportunities for summer 2007.

When a scale map of Alaska is superimposed on a map of the forty-eight lower states, Alaska extends from coast to coast. Yet the total population is under 700,000 people—not quite enough to fill the city of Seattle! With so few people spread across such a vast area,

distance learning and web accessibility are important topics for Alaskan students and educators. DO-IT staff will return this summer to host an exhibit and deliver presentations at the Midnight Sun State-Wide Assistive Technology Conference (http://www.akatconf.com/) and to deliver special trainings on campuses. For more information about AccessSTEM consult http://www.washington.edu/doit/Stem/description.html.

DO-IT and INCIGHT in Oregon by Robbie P., *AccessSTEM* Team Member

I'm a junior at Portland State University; I am also a C6-C7 Quadriplegic. Until this last term I was fortunate not to need to find a job while in school, but, as everyone knows, financial situations can change, and I recently found myself in need of a part-time job to help pay living expenses. I had heard about a nonprofit in the Portland area, INCIGHT: Resources for Self-Empowerment, which assists students with disabilities who are seeking employment. I gave INCIGHT a call and found out that DO-IT was funding an internship at INCIGHT! I applied and got the internship with INCIGHT, partly due to my multimedia studies at Portland Community College.

The internship that DO-IT provided me has been great. One unexpected bonus is my new job with a business that shares the same space with INCIGHT. Not only did DO-IT help me with an internship, it put me right in the place I needed to be to network and build business relations in the field I'm interested in. Now I'm doing great at both part-time jobs and continuing my education. Things are busy, but I can handle them. Thank you DO-IT, INCIGHT, and Wired.MD!

DO-IT Staff Member Wins WAPED Achievement Award

by Michael Richardson, DO-IT Manager



DO-IT Program
Coordinator, Scott
Bellman (pictured
left), won the 2007
Achievement Award
from the Washington
Association on
Postsecondary
Education and
Disability (WAPED).
This award is present-

ed to someone who has contributed to increasing knowledge and awareness of disability issues in higher education.

Through DO-IT projects at state, regional, and national levels, Scott works tirelessly to increase the success of students with disabilities as they progress through their academic studies and enter the workforce. Scott's counseling skills and commitment to engaging students in experiences that allow them to develop workplace skills has been effective. Since 2001, Scott has developed more than eighty challenging paid internships for students with disabilities, mostly in Washington State, and has helped facilitate more than 400 other work-based learning activities such as job shadows, speaking engagements, company tours, and volunteer jobs.

Working one-to-one with a young student or addressing a national conference audience of employers, Scott engages others in implementing practices to improve student success and employer satisfaction. He continues to seek new avenues to bring additional collaborators to the table. Scott has co-authored publications in peer-reviewed journals and was recently appointed as the State Coordinator for National Disability Mentoring Day through the American Association of People with Disabilities.

Congratulations Scott!

DO-IT Ambassador Wins 2007 WAPED Outstanding Student Award

by Michael Richardson, DO-IT Manager



Jessie Shulman, '98 Scholar (pictured left), is this year's recipient of the 2007 WAPED Outstanding Student Award. This award recognizes a student with a disability currently enrolled in a postsecondary institution in Washington

State for making a significant contribution to his/her institution, community, or the state of Washington. Recipients are evaluated on their academic/vocational achievements, extracurricular involvement, community service, and demonstrated self-advocacy.

We met Jessie in 1998 when she entered the *DO-IT Scholars* program as a high school sophomore. Initially a quiet and reserved student with a learning disability, Jessie grew over the next several years to become an advocate, activist, mentor, and stellar student at the University of Washington.

Jessie is completing her Bachelor of Science in Informatics with minors in Dance and Mathematics. She currently maintains a 3.85 GPA. She has made the UW quarterly Deans List for the last six consecutive quarters. Jessie has recently been hired to work in a technology solutions unit in the banking industry.

Prior to entering the UW Jessie was selected to participate in the 2000 Governor's Youth Leadership Forum for students with disabilities in Olympia, Washington. Once she started her studies at the UW, Jessie began participating in enriching academic activities outside of the classroom. In 2002, she was a conference delegate at the Institute for Women in Technology's Virtual Development

Center Conference in Palo Alto, California. Here, she presented material from her team independent study in the UW electrical engineering department's Genomation Lab. She and her team also presented at the University of Washington Undergraduate Research Symposium that same year. Involvement in these high-tech opportunities also led to involvement in Women in Science and Engineering (WiSE), a mentoring and academic interest group designed to increase recruitment and retention of women of diverse backgrounds in science and engineering. This year, Jessie received the Boeing Informatics Diversity Scholarship from the Information school at the UW was elected the Director of Operations for the Informatics Undergraduate Association.

Aside from her academic learning, Jessie also ensured that she participated in campus disability-related activities. In 2003, she was one of the founding members of Disability Advocacy Student Alliance (DASA), a grassroots student group facilitated for and by students. The goal of DASA is to address the needs and concerns of the disability community and its allies on the University of Washington campus. Jessie has served as the DASA president and remains actively involved with the group.

Last year, Jessie was a member of the UW Training Collective. This is a group of faculty and students who gather to discuss and review training philosophies, goals, and audiences; pilot and evaluate training options, and propose an effective permanent diversity training program for students, faculty, and staff.

Never a quiet moment in her busy life, Jessie has also taken advantage of every summer by participating in challenging internships to expanding her learning. Her first internship experience was with the Human Interface Technology Lab (HITL) at the UW from

2001-2002. Here, she worked with world-renowned virtual reality researcher, Hunter Hoffman.

In 2003, Jessie was selected for a Microsoft/ American Association Of People with Disabilities (AAPD) Federal IT internship program in Washington DC working with the Department of Education Assistive Technology Center. Jessie returned to Washington D.C. the following summer to work as an intern with the World Bank Group, International Bank of Reconstructive Development Information Solutions Group.

In 2005, Jessie worked in the Lab Animal Resources and Pathology department at Amgen in Seattle, providing clerical support and assistance in developing the department's web portals. Last summer, she was an Information Management Intern at Onvia in Seattle, working as a member of the product and services team in the development and launch of a new product.

Even with a full plate, Jessie continues to be involved with DO-IT, where she provides her insights on disability issues through our electronic discussion lists and on-site programs. She continues to mentor adolescents with disabilities. Jessie's accomplishments in her education and her personal life are phenomenal. Congratulations Jessie!



DO-IT Director Sheryl Burgstahler welcomes panelists.

UW Hosts Faculty Institute on Creating an Inclusive Classroom

by Rebecca Cory, DO-IT Staff

On April 5, twenty-four University of Washington faculty gathered to participate in the Faculty Institute on Creating an Inclusive Classroom. The half-day seminar featured content on universal design of instruction. Ana Marie Cauce, executive vice provost, opened the session by reminding faculty of the UW's commitment to inclusion of diversity in the classroom.

Then Dyane Haynes, director of Disability Resources for Students, described the UW accommodation process and explained how universal design can make courses welcoming and accessible to all students.

Up next on the agenda was DO-IT Director Sheryl Burgstahler who helped faculty understand how they can apply universal design to their instruction.

After showing a DO-IT video on universal design, I spoke about how an individual faculty member's work towards universal design fits into the big picture of systemic change on campus.

The morning wrapped up with a group action planning and a brainstorming session. Faculty described the session as "valuable" and they appreciated the resources that DO-IT

provides. Current plans involve offering additional institutes to faculty at the UW Seattle, Tacoma, and Bothell campuses.



Ambassador Profileby Jesse S.

I have had an interest in technology since a young age. In 2003, I was chosen as a *DO-IT Scholar* and the access to technology this provided was indeed helpful. During my second

year as a *Scholar*, for my Phase II Project, I did a survey of accessibility features in various computer operating systems.

I also designed my own independent study of computer programming during high school to make sure I was getting the most out of my education. When I graduated from Chief Sealth High School in 2005, I had already completed a summer internship at Microsoft and was preparing to do another before heading to Goshen College in Indiana.

Last summer, I was offered the opportunity to be the only intern at Granite Edge Networks in Bellevue, Washington, through the DO-IT *AccessSTEM* project. During this internship, I added build reporting and other functionality in Perl (a programming language); proposed, researched, and re-implemented a client side installer after determining that the previous installer package was no longer able to do what was needed; and automated most of the build process for the client side application where no automation had existed before. This was all great experience for me in computer programming.

During the school year at Goshen College, I am a lab assistant in the Computer Science Department for a Programming Techniques class. I also participate in the Goshen Men's Chorus and joined them on a West coast tour this year.

Recently, I was accepted as an intern with NASA at Kennedy Space Center. I will be in Florida this summer working on a document management system for the Constellation Project, which is developing the next manned space vehicle that will go to the International Space Station and, later, probably to the moon and Mars. I'm really looking forward to working in their safety division.

I want to thank everyone from DO-IT for their help and support of my long-term success.



DO-IT Staff Profile by Nanette Rosenthal

Hi. I'm Nanette Rosenthal. I've been working at DO-IT since 2000 and am Manager of Program Operations. I work behind the scenes on grant and budget administration and

human subjects approval for our research, among other things. I graduated from the University of Washington in 1979 with a B.A. in European history. I've been interested in education and disability-related issues for a long time, serving on the board of directors of the Washington State Chapter of the Tourette Syndrome Association for seven years.

Outside of work, life with my husband and two teenage sons keeps me busy. I try to fit in time for cooking and gardening as well and have been a member of my church choir for nearly thirty years!



DO-IT Scholars Nate, Daren, and Zach.

AccessComputing Wins Team Innovators Award!

by Michael Richardson, DO-IT Manager

Each year, the University of Washington College of Engineering honors its outstanding staff, teaching and research assistants, and faculty who make innovative and meaningful contributions to our community.

On April 24, the *AccessComputing* project received the Team Innovator Award for 2007! Only six project participants could be presented with the award, so Sheryl Burgstahler, Richard Ladner, Michael Richardson, Rob Roth, Terry Thompson, and Lyla Crawford accepted it on behalf of all who are working to make this project a success by increasing the participation of individuals with disabilities in computing careers nationwide.

AccessComputing is led by the Department of Computer Science and Engineering and DO-IT at the UW. Project partners include the NSF-funded Regional Alliances for Persons with Disabilities, Gallaudet University, the National Technical Institute for the Deaf, Microsoft, and SIGACCESS of the Association for Computing Machinery (ACM). It is funded by the National Science Foundation as part of the Broadening Participation in Computing (BPC) program of the Directorate for Computer and Information Sciences and Engineering (CISE) (grant #CNS-0540615).

For more information on AccessComputing, go to http://www.washington.edu/AccessComputing/.

Spring Transition Events in Full Swing by Debra Zawada and Lyla Crawford, DO-IT Staff

March 2007 was a very busy month for DO-IT. We planned and participated in many transition to college and career events throughout the Northwest. Local Seattle area events included a transition resource fair at Highline School District on March 1. DO-IT assisted with planning and staffed an information table along with three separate screenings of the "College You Can DO-IT" video. The 6th annual Transition to College Event at North Seattle Community College held on March 27th was attended by students and educators surrounding districts. As always, the highest rated activity of the day was the panel of college students with disabilities sharing their successes and challenges as they transitioned from high school to college. Participants were also involved in workshops on assistive technology, accessing college services, and developing self-determination skills. Our partners at North Seattle Community College provided the facility and met the technology needs for the event. DO-IT also co-hosted an event the next day at the Seattle School District. DO-IT staff, along with a DO-IT Scholar, opened each of the four sessions with a selfdetermination workshop before the students attended a resource fair with thirty agencies represented.

On March 27th Spokane Community College (SCC) hosted its 7th Annual Student Transition Conference. 124 high school students, from all over eastern Washington, and 40 educators and parents attended the four hour event. The conference offers high school students practical and useful information they can use to make a successful transition to postsecondary education. "It's a great way to get students, their teachers and parents talking about what the future may hold for these stu-

dents; there are a lot of options in education and in the community," says Sally Hillebrandt, SCC Disability Support Services program support supervisor.

Participants attended sessions on topics that included navigating and accessing services in higher education, how to get and keep a job, and balancing work, money and education. The conference also offers a campus tour and a session just for high school seniors. In addition to the sessions participants were given a transition guide which includes information on the differences between high school and college, tips on how to find a college that's right for them, information about disabled student services on campuses, explanations of financial aid options, community resources related to higher education and much more. On of the parents in attendance remarked "This is great! You are telling him all the things I have been telling him, but he seems to be listening to you."

Out of state travel took us to Boise, Idaho and Portland, Oregon. This was our third year participating in the Tools for Life: Secondary Transition and Technology Fair in Boise. This year attendance topped 400 students, taking advantage of two days of workshops on varied aspects of transition. DO-IT presentations were geared toward students, parents and teachers on the topics of preparation for college, using universal design strategies in career exploration activities, along with strategies to talk with an employer and keep a job. Our partner agency in Portland, INCIGHT: Resources for Self-Empowerment, co-hosted a Transition To College and Career Day. DO-IT ran two breakout sessions on self-advocacy and work-based learning. In addition to a panel of college students with disabilities, there was also an employer panel present to answer student questions regarding employment of individuals with disabilities. Based on the contacts made at these out of state events,

we are already planning to return to work with different school districts and the Oregon Business Leadership Network (OBLN).

Although such a busy month is hectic, we always enjoy the opportunity to interact with students, parents, teachers and business leaders with the objective of improving transition outcomes for students with disabilities.



Ambassador Steven Toyoji Places in Lilac Bloomsday 12K

by Tamitha Tidwell, DO-IT Staff

On Sunday, May 6, over 40,000 people (including me) flocked

to Spokane, Washington to participate in the 30th annual Lilac Bloomsday 12 kilometer run/walk. The route is challenging, and when I finished walking I thought my time of just over two hours was pretty good, until I attended the awards ceremony. The hill where the ceremony was held was blanketed with racing wheelchairs! The junior wheelchair racing team from Spokane, decked out in matching racing gear, caught my eye immediately. As the awards were announced, to my delight, I heard one very familiar name: DO-IT Ambassador, University of Arizona student, and elite wheelchair athlete, Steven Toyoji (pictured on previous page). He placed third in the Wheelchair Division, taking home a \$700 prize!

The Wheelchair Division at the 2007 Lilac Bloomsday was the largest in ten years and, in the Quad Division, Spaniard Santiago Sanz-Quinto set his third consecutive course record with a 32:44 victory! The Lilac Bloomsday is the first run in road racing history to feature a team wheelchair competition between university-level athletes. Making history, the two competing teams, including two

males, two females, and one T-2 Quad competitor, went head-to-head with the University of Illinois team beating the University of Arizona. The University of Illinois will display the Bloomsday Collegiate Challenge trophy on their campus for the next year. Competitors from both teams hope that more universities will develop similar programs before next year's Bloomsday event on Sunday, May 4, 2008.

Spokane will also host the 2007 Adult National Wheelchair and Amputee Track and Field Games and the National Junior Disability Championships July 21-28.



DO-IT Scholar Jenny works on her computer.

Tech Tips: Do You See What I Hear? Video and Captions on the Web by Terry Thompson, DO-IT Staff

Every day the World Wide Web becomes a little more like television on steroids. Sites like http://youtube.com/, http://video.google.com/, http://video.yahoo.com/, http://video.msn.com/, http://video.aol.com/, and http://www.myspace.com/ provide thousands of videos in dozens of categories. NBC Universal and News Corp recently announced that they, too, plan to enter the online video arena by showing free online versions of popular television programs.

Want to upload your own movie to the web? Just follow the "Upload Video" link on http://youtube.com/ or http://video.google.com/ and your home video will soon be available to millions of viewers around the world.

So, what's the difference between viewing video online and viewing it on television? Well, one big difference is that most television programming includes closed captions for viewers who are deaf or hard of hearing, thanks to the Telecommunications Act of 1996, which requires captions on most U.S. television programming. In contrast, few videos on the Internet are captioned. This means that individuals who can't hear the audio are missing a large portion of the message. Unfortunately, this is not an easy problem to solve.

Here's how captioning works: First, one must create or obtain a transcript of what's said in the video. Second, one must time-stamp groups of words in the transcript so that these words will appear as they're spoken in the video. Finally, the time-stamped transcript must be converted to the appropriate format so it can be displayed as closed captions along with the video. The first step, creating a transcript of the words that are spoken in a video, requires a lot of time and expense, and is the greatest barrier to online video becoming captioned.

We at DO-IT have produced over 30 videos. In each of our videos, we addressed the transcript problem by starting with a script prior to filming. The script guides production, then after the video is finished it can easily be converted to captions, saving us the time and effort of creating a transcript. Someday, computers will automatically be able to generate transcripts using speech recognition. Current technology isn't accurate enough to reliably do this, although it's getting a closer. You can see positive progress at http://http://podzinger.com, where speech recognition is used to extract text from podcasts so that users can search them. It's accurate enough for search, but not quite accurate enough for captions. Until computers can generate transcripts for us, we're stuck doing it ourselves.

What about video that was originally broadcast on television? Since that had to be captioned for television, at least that online programming will be captioned, right? Unfortunately, no! Believe it or not, programming that is captioned on television is typically shown on the Internet without captions. This isn't because of technical problems - there are now tools available that convert television-style captions to the format needed for delivering them online. However, an even greater barrier is that online video providers have a very difficult time locating and obtaining rights to the closed captions. Consider the following example. Company A wants to show an old TV series to viewers over its website. It secures the rights to this material from Company B, who produced the original media and owns the rights to it. However, Company B didn't caption their media—this happened much further downstream, by the distributor (Company D) or broadcaster (Company E), who outsourced to a captioning company (Company F). Company A now has to contact Company D or E in order to locate Company F, who hopefully will have the captions for the TV series. There's little consistency in how this has all transpired, which makes the process much more difficult than it probably should be.

Despite these problems, efforts are under way to at least caption some of the video that are available online. Google encourages users to upload captions with their video content, and has developed its own simple technique for marking up transcripts as captions. Google is interested in having captioned video not just for accessibility, but for the same reason http://podzinger.com is interested: Captions make it possible for users to search the full text of videos.

Google has made a very small hand-selected sample of their captioned videos available at http://video.google.com/videocaptioned. Unfortunately Google does not currently pro-

vide a means for users to filter video search results to include only videos that are captioned, but including the phrase "closed captioned" in the search field will sometimes yield positive results.

Similarly, AOL currently offers a portal for viewing its captioned CNN News updates (http://ability.aol.com/ability/index. php?ID=45&catID=6). However, for other captioned content on AOL users just have to browse the entire collection looking for that rare video that claims to be "Closed Captioned".

A couple of websites have emerged to address the problem of online closed captioned video being hard to find. One is http://harkle.com/, which features a searchable database of captioned videos, and currently includes links to several hundred videos from all over the web. Another website is http://projectreadon.com/, which displays videos on their original web pages, but displays captions for each video in a custom standalone caption player which floats over the video. The folks at http://projectreadon.com/ do the caption work themselves, and take requests from users.

To summarize, video is everywhere. But not everyone can hear it. How can you help to correct this problem? There are many ways.

- 1. If you upload videos to the web, be sure to include captions. Once you have a transcript, converting it to captions is easy. There are several software tools available for this, ranging from free to affordable. Contact DO-IT for recommendations.
- 2. If you know others who upload videos to the web, encourage them to include captions.
- 3. Consider pursuing a career that will help to make the process automatic. Speech recognition is a hot area in computer science these days, and some important work is taking place in the Signal, Speech

and Language Interpretation Lab right here at the University of Washington. See their website for more information: http://ssli.ee.washington.edu/.

The Thread—Qualities of a Good *Intern* by Sheryl Burgstahler, DO-IT Director

I recently posed the following question within our Internet discussion forum. I will share with you some of the responses so that you can get a flavor of the many rich conversations the DO-IT community has online.

Soon, DO-IT Scholars/Ambassadors who have not yet been Interns for Summer Study will have a chance to apply for Summer Study 2007. Those who are accepted into internship positions will live in the dorms with the Scholars and help with computer lab activities, field trips, recreational activities, and other Summer Study events and operations. Ambassadors, Mentors, what would you say are the best qualities for an Intern to have? What should we be looking for as we evaluate applications for these positions?

DO-IT Ambassador: I'd say that the ability to know when to act as a friend and when to act as a leader is a very important quality to possess.

DO-IT Staff: You make a good point. It can be hard when you are in a near-peer situation to take on the role of authority when necessary, but it is an important role to be willing and able to take.

I also think Interns need to be good at time management. They don't get told when to go to bed, but are some of the hardest-working folks. They need to be in touch with their limits and advocate for themselves so they are able to do their job and stay healthy.

DO-IT Staff: I would add that a good Intern is the kind of person that will maintain good communication with the supervisor. This applies for any internship.

DO-IT Ambassador: The purpose of being an Intern is to learn what it takes to do the job without the same pressures of actually having the job. Social interactions are a must for any work situation, including an internship.

DO-IT Staff: I find that someone being alert to what is going on and taking the initiative to get things done is a key skill for not only Interns but staff as well.

DO-IT Staff: In my opinion, a top quality to have would be the ability to be an effective role model to the younger Scholars as well as to your peers and fellow Interns. This would include the ability to demonstrate appropriate and professional behaviors in communication as well as in actions, along with the ability to inspire and motivate others to grow personally and academically.

DO-IT Ambassador: One of the most important things I did as an Intern was to be welcoming and open to the new Scholars. It's different from the first two years at Summer Study because you are there to support Phase I and II Scholars and the staff, rather than to only focus on having fun and learning in the sessions.

One of the biggest challenges is learning to draw a line between your role as a Scholar and your role as an Intern because you fall somewhere between the new Scholars and the staff. You constantly have to keep in mind your responsibilities for each day and balance that with helping the Phase I and Phase II Scholars feel comfortable and have fun.

DO-IT Ambassador: Here are some qualities of a good intern that my professors from undergraduate and graduate school believed to be important

- Strong interpersonal skills
- Ability to multi-task
- Taking constructive criticism well
- Strong writing skills
- Punctuality
- Effective communication

DO-IT Ambassador: In my opinion, knowing when to say, "I don't know" is also important. Many new Scholars are going to have questions, and, even though you have been in the program for a few years, you are still not going to have all the answers. This is OK. Being an Intern means you are learning as well. The best response I have ever heard was "I do not know the answer to this, but I do know who would." WOW. You have just shown that, no, you don't know the answer, but you still know how to find the answer.

DO-IT Scholar: Hello everyone! One of the most important things I learned from my internship was how to be a more confident person. DO-IT offers other internships outside of Summer Study, and I did an internship in the area of real estate. In real estate you are helping people find and purchase their dream homes or helping them sell a home, so you have to be really confident in what you are communicating to your client. What I want everyone to get out of this is that when you get into an internship that fits your career goals, just have confidence in yourself that you can do it and you will do it!

DO-IT Ambassador: Appearance is always important in any internship. Men should take care of any facial hair they may have, dress nicely, shower regularly. Women should do the same, minus the facial hair problem. The way you present yourself either in the job world or internship helps to make a great impression and allows people to feel more at ease with you. One of my college professors made a comment that stuck with me even to this day —dress for success. If you walk into an interview dressed in business attire you will be more likely to get the job than the person next to you if s/he is wearing ragged jeans and T-shirt. When you are an intern you have been given the chance to potentially get hired on with that company full time. If you dress for success every day you show up for work, then the company where you are an intern will remember you when they are considering candidates for a job, even if you struggled to learn the job. You have already got your foot in the door, and this could mean the difference between a well-paid job and a minimum wage position.

DO-IT Ambassador: I would say that dressing appropriately is more of an issue when first making an impression than in the day-to-day work environment (there are often office dress codes as guides, otherwise just use good judgment). I'd say that an intern must have a willingness to learn new things, and, in order to do that, an intern must be flexible if it is to be a meaningful experience.

From my experience as an Intern, you won't learn all of the material or tasks an Intern does, but you will learn the processes behind the scenes and how to figure out what you need to know. It really is essential to acknowledge that an internship is a different type of learning that is generally not learned through course work.

As far as general job skills go, an Intern needs to be responsible and have effective time management skills, which includes prioritizing tasks effectively. No boss, or professor even, will accept that you didn't get an important project done because you were working on something else.

DO-IT Ambassador: I would like to add two additional comments:

- 1. Communication is important. You need to be able to communicate to your coworkers/ supervisors what you need. Be prepared to answer questions, especially when you are training others.
- 2. Be willing to adjust to other people's learning styles. This is the most important lesson I learned when I was a volunteer. I had two clients whom I trained on the computer and they both had different ways of learning. One liked to learn via verbal communication, but she would take notes while I was talking to her. My other client liked to have her instructions written out so she could follow them at her own pace. When you are doing an internship that requires you to train others, you really need to be able to adjust to their ways of learning.

The Browser: Calendar of Events

For a schedule of conferences of interest to our readers, go to http://www.washington.edu/doit/
Newsletters/calendar.html

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