

Director's Digressions: 2016 ALTS Report

By: Sheryl Burgstahler, DO-IT Director

DO-IT has compiled its latest data summary and report for the *AccessSTEM/AccessComputing/DO-IT Longitudinal Transition Study (ALTS)*. This study tracks the college and career pathways of students with disabilities who have participated in activities sponsored by projects of the DO-IT Center at the University of Washington. ALTS participants also participate in one of DO-IT's many programs, including *DO-IT Scholars*, *AccessSTEM*, and *AccessComputing*. To review this report, visit www.uw.edu/doit/2016-report-accessstemaccesscomputingdo-it-longitudinal-transition-study-alt.



Students report that DO-IT interventions, like mentoring, encourage them to complete college and find challenging careers.

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To date, 472 students with a wide range of disabilities have agreed to participate in this ongoing study. Participants rate the value of DO-IT activities and how they have affected their educational and career outcomes. As this database grows, both in number of participants and number of interviews per participant, it is expected to reveal the long-term impact of DO-IT's program activities and which activities are most beneficial for achieving positive postsecondary outcomes.

The *AccessSTEM/AccessComputing/DO-IT Longitudinal Transition Study* was developed with funding from the Research in Disabilities Education program of the NSF (award HRD-0227995 and HRD-0833504) for the Alliance for Student with Disabilities in Science, Technology, Engineering, and Mathematics (*AccessSTEM*).



Video still of Captions: Improving Access to Postsecondary Education.

Captioning at the University of Washington

By: Susie Hawkey, DO-IT Staff

Beginning Fall Quarter, Accessible Technology Services (ATS) at the University of Washington (UW) started to caption a limited number of UW video presentations without charge through a short-term funding opportunity supported by our central IT unit, UW-IT. Individuals, departments, and other units at the UW are encouraged to apply for funding to caption highly-visible, high-impact, strategic videos (such as videos available to the public on a high-use website, videos that will be used multiple times in a large course, and videos developed by faculty members to be used in several different classes).

In this effort we are promoting captioning as a best practice in teaching, not simply as an accommodation for individuals with hearing impairments. This message is shared in our video *Captions: Improving Access to Postsecondary Education* (www.uw.edu/doit/videos/index.php?vid=59).

The response to the video captioning project has been very positive. So far we have captioned over 85 videos totaling more than 39 hours that we expect to be seen by more than 15,000 individuals each year.

AccessComputing Capacity Building Award Presented to Two Partners at Carnegie Mellon University

By: Brianna Blaser, DO-IT Staff

Jeff Bigham and Carol Frieze, both of Carnegie Mellon University (CMU), were recipients of the 2016 *AccessComputing* Capacity Building Awards. Capacity Building Award recipients are collaborators who have forged pathways that significantly advance students with disabilities in computing fields. Through their work and accomplishments, award recipients have changed the way the world views people with disabilities and their potential to succeed in challenging computing careers and activities.

Jeff Bigham is an Associate Professor in the School of Computer Science (SCS) at CMU. He received the Capacity Building Award for his work engaging students with disabilities in accessibility research and outreach activities. Jeff has hosted multiple *AccessComputing* research interns in the accessibility research that his lab conducts. He has also led computing activities for students at National Federation of the Blind conferences.

Carol Frieze, Director of Women@SCS and SCS4ALL at CMU, received the Capacity Building Award for her working making broadening participation programs welcoming and accessible to students with disabilities. Carol has made efforts to include students with disabilities in existing computing outreach activities and expanded efforts to offer workshops and activities for students with disabilities. This fall, Carol planned a Capacity Building Institute at CMU that addressed current and future resources for CMU faculty, staff, and students with disabilities and showcased some of the amazing disability research going on at CMU.

DO-IT Connects Career Centers and Disability Services Offices

By: Scott Bellman, DO-IT Staff

DO-IT launched a new webpage called “Replication of *AccessSTEM CAREERS*” to share information about an innovative project and encourage others to make postsecondary career centers more welcoming and accessible to students with disabilities.

AccessSTEM CAREERS, funded by the Mitsubishi Electric America Foundation (MEAF), promotes science, technology, engineering, and math (STEM) fields to students with disabilities. A primary focus of the project is connecting postsecondary career centers with campus disability services offices to improve accessibility, train staff, and identify ways to help students with disabilities feel welcome at career centers. A replication package describing project activities is freely available at www.uw.edu/doit/accessstem-careers/replication-accessstem-careers.

During the project, the University of Washington’s Career and Internship Center worked to create a resume book for students with disabilities. The book is shared with employers specifically seeking candidates with disabilities. The team also created two new web pages:

- The UW Career and Internship Center website for students with disabilities: careers.uw.edu/resources/?ctag%5B%5D=students-with-disabilities
- The UW Career Center website for employers seeking candidates with disabilities: careers.uw.edu/employers/candidates-with-disabilities



Replication of *AccessSTEM CAREERS*

[Printer-friendly version](#)
AccessSTEM CAREERS is funded by the Mitsubishi Electric America Foundation and directed by the Disabilities, Opportunities, Internetworking, and Technology (DO-IT) center. The project promotes science, technology, engineering, and mathematics (STEM) fields to students with disabilities in the Seattle area and works with career centers at local colleges to help make offerings welcoming and accessible to students with disabilities. Project partners are the University of Washington (UW), Bellevue College, and the Seattle College District.



Project Activities for Students with Disabilities: At partner colleges, *AccessSTEM CAREERS* students engage in the following activities:

- **STEM Career Development Workshops.** In this monthly series of workshops, students have engaged in a STEM research lab, a resume-writing workshop, student competitions, hands-on activities with assistive technology, and an exploration of resources.
- **Work-Based Learning.** Students engage with mentors in mock interviews, job shadows, internships, and other work-based learning activities.
- **Online Mentoring and Peer Support.** Students engage in an online community supporting the pursuit of STEM careers.

Project Activities for Employers: Employer mentors address student questions and interests regarding career development, STEM academic programs, internships, and labor market trends. They have access to student resumes, learn about good candidates for internships and jobs, and host work-based learning experiences.



Project Activities for Postsecondary Career Centers: Career counselors engage in professional development and online discussions about making career services welcoming and accessible to students with disabilities. *AccessSTEM CAREERS* student leaders help career counselors conduct accessibility reviews of career center facilities, products, and services.

*The Replication of *AccessSTEM CAREERS* web page.*

AccessSTEM CAREERS is also sharing information through the DO-IT Knowledge Base, which can be accessed at www.uw.edu/doit/knowledge-base. Here are examples of articles developed during the project:

- How can postsecondary career centers increase their engagement of students with disabilities?
- The Elevator Pitch Contest: A Promising Practice in Preparing Students with Disabilities for Employment
- What is MEAF and how do they support individuals with disabilities?
- The Career Center Resume Book: A Promising Practice in Promoting Employment for STEM Students with Disabilities

If you would like to get involved, pass this information on to the career center at your local college. For assistance or further information, contact doit@uw.edu. DO-IT thanks MEAF for supporting this fun and engaging project.

What Does Living with a Disability Mean to Me?

By: Sara London, DO-IT Intern



The true meaning of living with a mental illness is that I can be who I want to be, because I have learned that what other people think means very little anymore. However, I do have limitations. I can't drink, I take medication throughout the day, I

must have a well balanced sleeping schedule, and I live with persistent anxiety.

I work two part-time jobs while attending graduate school. Living with a severe mental illness and still managing a hectic lifestyle seemed impossible at first. My mind can bounce back and forth. I have confidence inside me that rose from this difficult journey. I am determined and live with this passion. All the while, I have this voice inside that says "you can't do any of it, you will fail, you will get sick again." I have learned that this is part of me. I recognize who I am as a whole, the positive and the negative.

The most interesting part of living with a mental illness is that it's not visible. Looking at my appearance, you would never know I live with this inside of me. Sometimes I feel like my disability is less credible, less serious, and less important because others cannot see what I live with. I sometimes work to hide that part of me, so others will not deem me as crazy. I find myself monitoring my emotions and adhering to what is socially acceptable because of the stigma placed upon people who live with a mental illness. I feel conflicted about what it means to be open about this part of me. It's a constant process, which comes with gains as well as losses.

Living a life with a mental illness is not easy. However, it seems that without this disability of mine, I wouldn't have been given as many incredible opportunities. I wouldn't have my identity. Without it I think I would be more lost, more unsure, and less driven. I see this disability as a gift. It has contributed to my incredible life full of love, support, undeniable personal drive, and fire. Without this illness, I wouldn't be who I am today. For that, I am always grateful.

An Accessible Hour of Code

By Brianna Blaser, DO-IT Staff

Every December, as part of Computer Science Education Week (csedweek.org/), students from across the country take part in Hour of Code (code.org/learn) activities that give them an introduction to computational thinking and computer science. There are almost two-hundred tutorials for grades K-12 that focuses on various aspects of computing. Once again, *AccessCSforAll* (formerly *AccessCS10K*) offered the only tutorial accessible to students who are blind or low vision.

The Quorum tutorial (www.quorumlanguage.com/hourofcode/part1.html) follows Mary as she learns how to program in Quorum to help with a research project at her school. Check out the tutorial and share it with students and educators who may be able to utilize it. There is also additional curriculum available for teachers to teach Quorum in their classrooms.



Quorum Hour of Code web page.



Sheryl and other Policy #188 coordinators discuss implementation efforts at the Policy #188 Capacity Building Institute.

Policy #188 Implementation

By: Sheryl Burgstahler, DO-IT Director

Readers of this newsletter know me as the Director of the DO-IT Center, but for this issue I will share work I do as director of the Access Technology Center (ATC). These two centers make up Accessible Technology Services within University of Washington Information Technology (UW-IT). While DO-IT reaches nationwide and even internationally in its efforts, the ATC's focus is close to home. Campus-wide, the ATC promotes the procurement, development and use of IT that is accessible to students, faculty, staff, and visitors with disabilities. The ATC hosts a showroom of assistive technology for people to try out and use. ATC staff also consult with UW staff and faculty on the design of accessible websites, documents, videos, and other technology, always striving to make our campus more inclusive.

ATS staff have been particularly busy because of a new Washington State policy (#188) on IT accessibility. Although we have always been required to make our resources, including those delivered through the use of technology, available to all potential users, this policy has provided us with some requirements that push this agenda forward. ATC is leading the campus effort for compliance with Policy #188 and is increasing its engagement with campus units so that they can do their part.

It also hosted a meeting of all Policy #188 coordinators from postsecondary institutions across the state so that we can coordinate our efforts in making the IT across all Washington State campuses accessible to all faculty, staff, and visitors.

For more information about Policy #188 consult ocio.wa.gov/policy/accessibility. For the UW's policy, guidelines, and support materials go to the Accessible Technology website that ATC maintains at www.uw.edu/accessibility/.

Bristol-Myers Squibb Gives Grant to DO-IT

By: Susie Hawkey, DO-IT Staff

Bristol-Myers Squibb (BMS) has been a continuous supporter of the DO-IT program. Once again this year, DO-IT has received \$5,000 of funding from BMS for science workshops and events that will take place during Summer Study 2017. The grant will be used to hire faculty and graduate students to teach a five-day workshop for teens with disabilities who attend DO-IT Summer Study and to offset the cost of the field trip to a local science exhibit (i.e. Seattle Aquarium or Pacific Science Center). During the field trip, the staff at the location engage the scholars in hands-on introductions to their programs. Then the scholars are able to continue their scientific exploration in small groups.



Scholars during the 2013 Summer Study field trip to the Pacific Science Center.



Participants answer discussion questions at the AccessComputing CBI.

December 2016 AccessComputing Capacity Building Institute

By: Kayla Brown, DO-IT Staff

In December 2016, *AccessComputing* held a Capacity Building Institute (CBI) with a focus on making classes, departments, and organizations more welcoming and accessible to students with disabilities and encouraging educators to include accessibility in the computing curriculum. This CBI was a hands-on, project-oriented workshop, where participants created resources to share with colleagues and students.

Attendees included computing faculty members and graduate students, computing students and professionals with disabilities, disability services professionals, and industry professionals from across the country. Sessions shared information on broader subjects such as accommodations and universal design, IT accessibility, and the experiences of individuals with disabilities, as well as presentations on specific outreach activities, strategies for making courses welcoming, and methods for teaching accessibility.

The CBI also facilitated discussions between participants. Through discussing topics such as challenges in increasing the participation of students with disabilities in computing and strategies to increase accessibility content in computing curriculum, participants were able to make tangible plans to implement at their

own institutions. To read the responses to discussion questions and session summaries, view the upcoming proceedings when they are released at www.uw.edu/accesscomputing/resources/capacity-building-institutes.

AccessEngineering Featured in Two Webinars

By: Brianna Blaser, DO-IT Staff

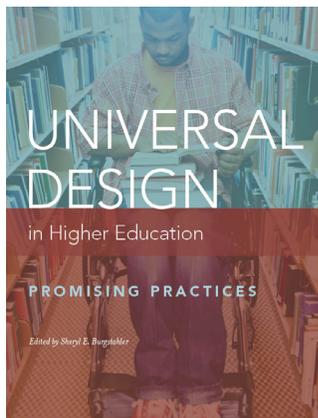
AccessEngineering leaders Sheryl Burgstahler, Kat Steele, and Maya Cakmak are presenting two webinars in January and February in partnership with national organizations. The first webinar, Making Engineering Welcoming and Accessible for Students With Disabilities (www.napequity.org/professional-development/webinars/), was hosted by the National Alliance for Partnerships in Equity (NAPE) on January 18, 2017 at 10:00 a.m. (PST) / 1:00 p.m. (EST). The presentation shared strategies for making engineering welcoming and accessible for students with disabilities, integrating relevant accessibility-related and universal design content into engineering courses, and ways that these strategies can improve engineering education for all students.



AccessEngineering Co-PI Maya Cakmak helps a Scholar with his project during a robotics workshop at Summer Study 2016.

The second webinar, *Introducing Accessible Technology in IT and Engineering Courses* (www.ahead.org/learn/virtual-learning/at_webinars_spring-2017), will be hosted by the Association on Higher Education and Disability on February 28 at 12:00 p.m. (PST) / 3:00 p.m. (EST). The webinar will look at how disability services staff can work with engineering and computing faculty to (1) create leaders with more diverse characteristics in their fields and (2) create a new generation of workers who can design products that meet the needs of all potential users.

Universal Design in Higher Education: Promising Practices Call For Articles



In DO-IT's online publication, *Universal Design in Higher Education: Promising Practices*, practitioners share promising practices related to the application of universal design in postsecondary education settings.

This collection of promising practices complements the more general content in the printed book, *Universal Design in Higher Education: From Principles to Practice*, which recently published a second edition under Harvard Education Press (hepg.org/hep-home/books/universal-design-in-higher-education).

This complementary publication is available freely online at www.uw.edu/doit/UDHE-promising-practices/. It can be freely copied and distributed as a book or in part for noncommercial, educational purposes. The collection will continue to grow as more articles are submitted.

Articles may be submitted at any time to udbecop@uw.edu. Submitted articles should include specific ways practitioners and researchers have applied universal design in postsecondary settings along with evidence of

success. They are peer-reviewed by members of the Universal Design in Higher Education Community of Practice (udbecop@uw.edu), and if accepted, edited by DO-IT. Articles selected for the online resource are freely available on our website. Authors must agree to these conditions while retaining copyrights to their individual contributions. For author guidelines, consult the preface of the book at www.uw.edu/doit/universal-design-higher-education-promising-practices.

About DO-IT

DO-IT (Disabilities, Opportunities, Internetworking, and Technology) serves to increase the successful participation of individuals with disabilities in challenging academic programs and careers, such as those in science, engineering, mathematics, and technology. Primary funding for DO-IT is provided by the National Science Foundation, the State of Washington, and the U.S. Department of Education.

For further information, to be placed on the DO-IT mailing list, request this newsletter or other materials in an alternate format, or make comments or suggestions about DO-IT publications or web pages, contact us at



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Calendar of Events

For a schedule of conferences, visit
www.uw.edu/doit/Newsletters/calendar.html