2020 Trailblazer Award Winners
By Sheryl Burgstahler, DO-IT Director

The DO-IT Trailblazer award highlights DO-IT community members who forge new pathways that benefit others. Through their hard work, they have changed the way the world views people with disabilities and have increased the potential of people with disabilities to succeed in college, careers, and community life. Congratulations to this year’s honorees!

Ather Sharif, an AccessComputing team member, has served as a leader and mentor dedicated to increasing the accessibility of information technology and the full participation of people with disabilities in computing. Ather is a Ph.D. student in the Paul G. Allen School of Computer Science and Engineering at the University of Washington, a software engineer at Comcast on the Core Application Platforms Team, and founder of EvoXLabs, an initiative dedicated to bridging the gap between technology and people with disabilities. Through EvoXLabs, Ather has mentored multiple AccessComputing team members in internships focused on accessibility. He has also partnered with DO-IT to organize hackathons and conferences focused on accessibility.

Brett Humphrey has helped host the annual DO-IT Summer Study Microsoft visit for over a decade. Over the years, Brett has met with...
many DO-IT participants for mock interviews, collaborated with DO-IT participants at major assistive technology conferences, and spent time with students during Microsoft’s annual Ability Summit. While at Microsoft, he has worked on game development tools and university partnerships, as well as worked on the Windows Accessibility Team. Brett’s work has helped create a more accessible digital world.

Kat M. Steele, a DO-IT collaborator with AccessEngineering, has worked to ensure that information about disability, accessibility, and universal design is included in the engineering curriculum at the University of Washington (UW) and beyond. Kat is the Albert S. Kobayashi Endowed Professor in Mechanical Engineering and Associate Director of Center for Research and Education on Accessible Technology and Experiences (CREATE) at the UW. Her research focuses on integrating dynamic simulation, motion analysis, medical imaging, and device design to improve quality of life for individuals with neurologic disorders. Kat has actively participated in DO-IT Summer Study by hosting DO-IT participants in activities where they have learned about makerspace accessibility, engineering principles, and universal design. She has also developed resources and published articles with DO-IT staff on topics related to makerspace accessibility and teaching about accessibility in engineering.

Ryan Fox, 2009 DO-IT Scholar, is a remarkable and effective advocate. In high school, Ryan made a film about taking the train from Everett to King Street Station to educate people with disabilities about the experience. While an undergraduate student, Ryan shared his “Different Doesn’t Mean Dumb” message with countless high school students. It is believed Ryan was the first student with autism to participate in Washington State’s Senate Page Program. He also helped SeaTac airport staff in their quest to become the world’s “most accessible airport” and helped them launch and build their “Wings for Autism” program. Ryan hosted a booth for many years at the Snohomish County Transition Fair and facilitated “Person Centered Planning” in a team setting. He has presented at the Washington State Youth Leadership Forum, encouraging students with disabilities to set challenging goals for themselves. Ryan’s speeches to Special Education PTA groups in K-12 schools inspired many students to plan ahead for college. Ryan is currently communicating with the League of American Orchestras and the Auburn Symphony to promote sensory friendly offerings and enhance the accessibility of concerts. His accomplishments in symphonic percussion, music, aviation management, advocacy, and mentoring are spectacular!

To read about previous DO-IT Trailblazers, visit www.uw.edu/doit/about/awards/trailblazers.

New Book on Universal Design by DO-IT Director
By Scott Bellman, Program Manager

Published by Harvard Education Press, releasing on December 8, 2020, we announce Sheryl Burgstahler’s new book, Creating Inclusive Learning Opportunities in Higher Education: A Universal Design Toolkit.

Sheryl Burgstahler delivers a step-by-step guide for putting the principles of universal design (UD) into action for all aspects of a postsecondary campus. She offers top-down, bottom-up, and middle-out strategies for transforming a higher education environment into one where physical spaces, learning
materials and activities, technology and digital resources, and campus services are welcoming and accessible to all students, while minimizing the need for accommodations for individuals with disabilities.

Complementing her edited book Universal Design in Higher Education: From Principles to Practice, this volume lays out how faculty, service providers, high level administrators, and other stakeholders can contribute to a barrier-free environment for all students, including those with disabilities. Along with principles, guidelines, practices, and processes that underpin a framework in which to conceptualize and apply UD, Dr. Burgstahler shares the implementation model to tailor to any campus exploring ways to meet broad goals with respect to diversity and inclusivity.

Details about the book can be found in Harvard’s sales flyer. It can be ordered online from Harvard Education Press at hepg.org/hep-home/books/creating-inclusive-learning-opportunities-in-higher-education. Mention sales code #INLEHE” for a 20% discount through 4/8/2021!

The Medical and Social Models of Disability
By Braxton, Phase I Scholar

One of my favorite sessions during Summer Study was called “Nothing About Us Without Us! Disability Identity.” It was a super fascinating and engaging session that especially taught me about two different models of disability. You may be thinking, “Wait, there’s more than one?” Welcome to the same learning experience I had!

The presenter was Kayla Brown, a DO-IT staff member. She introduced us to the medical and the social model. The medical model, as she described, presented “disability is a ‘problem’ that exists within the person and the goal is to ‘fix’ the person.” This model has been used historically as the system of how to view people with disabilities, but it can perpetuate ableism and harmful ideas.

The social model on the other hand, “recognizes that disability and impairment are two separate things. A disabled person is a person with an impairment who experiences disability. Disability is a social construct created by barriers within institutions, attitudes, stereotypes, and inequality.” This model does not perpetuate the idea of “fixing” disability and promotes progress and accessibility from the beginning.

These two models are very important to me and the history of how we treat and view people with disabilities.
Deaf Accommodations
By Clarice, Phase I Scholar

As a deaf person, I believe that we need to make some changes in our society in order to accommodate more people within our community. Deaf people can often struggle in society because of the lack of resources available.

Captioning should be provided on all videos, including FaceTime, Instagram videos, and any type of lecture. Providing captions on all videos can improve average watch time as “people are more likely to watch your video…[when] hav[ing] the option to turn captions on” (www.rev.com/blog/reasons-to-use-closed-caption-in-videos). When videos don’t provide captions, it decreases the watch time as people lose interest or don’t watch the full video. This shows that captioning is very important not only to the deaf community but to everybody who wants to enjoy videos online.

Learning sign language in elementary school should become a nationwide requirement and not just in certain schools. Students at Dayton Consolidated Elementary in Maine “started learn[ing] sign language …[where] about a third of the kids now know enough [sign language] to navigate a kindergarten conversation” (www.cbsnews.com/news/dayton-maine-elementary-school-students-learning-sign-language-in-support-of-their-classmate-2019-06-07/). The students didn’t do it for a specific curriculum but instead to make a classmate feel more welcome. These kindergarteners set a good example of how even young children can make a difference by learning sign language to make the classroom more diverse and inclusive for any type of disability. If even basic sign language was taught at a young age, more people would be able to share these communication skills widely and make a difference.

Personally, captioning really helps me with videos, especially in online meetings when people are talking over each other, and I often can’t read their lips. Without captions, I can be completely lost. If there aren’t any captions available, I will reach out to whoever created the video or coordinated a meeting.

Furthermore, it would create a more inclusive country if sign language was a required course in elementary schools. An adult who is fluent in sign language could teach every grade as a weekly or monthly opportunity. To promote this, reach out to school and district directors to recommend this idea and why it should be required.

Many deaf people use a sign language interpreter while learning in class.
**ADA 30th Anniversary**  
By Ethan, Phase I Scholar

On Monday, July 27, 2020, we watched the 30th anniversary of the Americans with Disabilities Act (ADA). This law protects people with disabilities by allowing them the same access as others. The ADA has brought the disability community together.

The ADA has allowed more people with disabilities to work. It helps take down barriers to discrimination and allows people with disabilities to be hired and to work more effectively. The ADA states that companies need to provide reasonable accommodations to employees. I wouldn’t be able to receive the accommodations I need to work without the ADA.

In school, the ADA helped students access accommodations, specialized education, and assistance to learning. Including things such as personal aides to guide our education and interpreters can provide access to those who are deaf. Without the ADA, I would have struggled a lot in school.

We had a lot of fun listening to Governor Jay Inslee and learning cool things about the ADA and different disabilities. It was also a nice opportunity to celebrate with my fellow Scholars. We shared our thoughts and had a discussion about the ADA.

**The Best Summer Study 2020 Classes**  
By Esteban, Phase I Scholar

I learned a lot at Summer Study 2020. I especially appreciated learning how to do web development and graphic design. I also really enjoyed the Tech Talks and the workshop on interacting with faculty. I learned in the latter class that I should work on being more confident and assertive, as well as asking what types of accommodations classes can offer for me.

I want to thank all the staff and the Scholars for all the excellent teamwork and great communication. I hope next year we all get the opportunity to meet in person and learn even more.

**Microsoft AI Technology**  
By Anthony, Phase 1 Scholar

During Summer Study, Heather Dowdy, a senior program manager at the Artificial Intelligence (AI) for Accessibility Center in Microsoft, talked to us about Microsoft AI Technology and how it helps empower people with disabilities. Her biggest advice for life was to be brave, be curious, and be open-minded. Specifically for AI, she shared how it can be used in the environment, culture, human rights, and more.
During this online Summer Study session, I learned that Microsoft AI Technology is a framework for creating artificial intelligence solutions for data, sciences, machine learning, and more. Someday everyone could be using it for tasks as individual as preparing for a job interview or as collective as protecting our environment. AI could potentially save our environment from pollution by analyzing better data models. I am considering studying environmental science in college. This may help me apply AI technology to solve environmental issues and help prevent the issues related to climate change.

Another thing that AI can be used for is health. Healthcare is even more important now due to the COVID-19 pandemic. Maybe AI could help us find a cure for coronavirus and other infectious diseases. More advances in healthcare could increase our lifespan in the upcoming years. I am also interested in healthcare and how AI technology can be used to improve our lives.

**Being Put on a Pedestal**

By Manuel, Phase I Scholar

We as a society are on a journey to reaching equality and making progress every year. In some areas, we make slow or little progress, but at least that’s better than no progress at all. With regards to ableism, I believe we are far from making obvious progress, but the story is not over.

To me, ableism refers to actions that showcase rejecting people with disabilities, taking their struggles for granted, being glad you aren’t like them, and making distasteful comments and jokes about them. This is a very undertaught topic that I never learned in my history classes. I hope we can bring more awareness of people with disabilities’ needs and stop ableist representations of people with disabilities.

People tend to fixate on people with disabilities by seeing them as inspirational just for living their lives. While being inspirational is not generally seen as a negative, in this context it is often nondisabled people saying people with disabilities can’t live up to more. People with disabilities are not special for just having a disability; they are special for being themselves and using their voices. They solely need more help and advocacy skills to have equal opportunities.

People with disabilities want to be treated like everyone else, not like little kids. People with disabilities are humans with feelings who don’t deserve to be joked about, stereotyped, or called bad words targeting their disabilities. Words matter, as they affect feelings, emotions, and social norms. While it can be nice to offer help to someone with a disability, don’t take it as an opportunity to ask about their disability. People with disabilities also don’t want to feel pressured to constantly explain their stories and backgrounds. This is often stressful, and people with disabilities generally have to explain their disability regularly just to receive accommodations.

People with disabilities appreciate the continued support of people in society. Though I will probably be very old when I notice progress in beating ableism, I hope in due time we understand that people with disabilities are just normal people living on Earth and that disabilities are a social construct.

“Disability doesn’t make you exceptional, but questioning what you think you know about it does.” Stella Young (1982 – 2014)
**Persevering to Success**
By Miles, Phase I Scholar

I was born with several congenital heart defects that required me to have several open-heart surgeries starting when I was just ten weeks old; while I have no further surgeries scheduled, it is still a constant thing on my mind. I also have been diagnosed with autism spectrum disorder. This means that my communication skills are not the best, and I have a hard time concentrating for long periods of time. Because of this, I take a course at my high school that provides me space and time to concentrate and work on assignments, projects, and tests for school.

I have been able to overcome my struggles several times and accomplish my goals and not let my disability take control of my life. In sixth grade, I won my school’s Brian Foote award, which is for persevering through tasks and overcoming difficulties. In eighth grade, I won the Kyle Keys award for outstanding courage. I have also been able to maintain a 3.83 GPA for high school, as well as be the news editor of my school’s newspaper, which has inspired me to be a journalist and has introduced me to many great friendships.

I am unique because I have been able to overcome my difficulties throughout my entire life, as well as make many close friendships. My family is very supportive of me and I believe that many of my goals are in reach, and I will continue to persevere until I am able to reach them.

**What Helps Dyslexic Students**
By Matthew, Phase I Scholar

Dyslexia, for those of you who do not know, is often categorized as a reading disability that affects the speed at which people are able to read or write. As someone who has dyslexia, I have many personal experiences with various tools and techniques designed to help those with dyslexia. Therefore, I will be describing some tools that I have found to be the most helpful for dyslexics.

Due to my dyslexia, I have an Individualized Education Plan (IEP), which provides me with accommodations at school. One of these accommodations provides me copies of the teacher’s PowerPoints and notes after a lecture. Since oftentimes dyslexics struggle to read and write, having the teacher’s notes allows me to pay attention to the lecture. I often have to memorize most information, so by getting the notes and paying attention fully to the lecture, I learn more efficiently.

Recently, I took a test at a college and they did not allow me to use notes on my final test, even though it was in my IEP. I scored less than 50 percent. When I contacted the school about my IEP and specific accommodations, they let me retake the test with notes, and I scored a 90 percent. I think that providing notes or outlines for all students is something that would help all students learn vocabulary and basic concepts much better.

Another way to support dyslexic students is to offer classes on how to use and troubleshoot interactive software. Although my phone has speech to text software, I always struggled to get my phone to type out what I was saying. By using speech to text software, it allows me and any other slow writer the ability to get our thoughts out. Through DO-IT, I was finally able to successfully use Dragon Speech. I felt comfortable trying out this technology since I knew that the DO-IT program would provide me with support. Dragon Speech is
not a cheap software, which can be daunting to spend if you don’t know if a program will work well for you. Providing classes on available tools and software, and the ability to test them out, could benefit all students.

Finally, an accommodation that really benefits me is extra time to complete work. With extra time I am able to read and process the information. I don’t need extra time because I have bad time management skills. Instead, I use my extra time to have people read and edit my document for grammar and punctuation. I find that although Dragon Speech is good, I can still use some assistance to make sure my message is clear and that takes time, which the IEP allows me to have.

Most of these strategies do not cost extra for the school or the student. If schools implemented these strategies for all students, all students would be able to be successful. I am lucky that through my accommodations and my disability, I have the opportunity to gain extra support through these options.

Should Pit Bulls be Banned
By Mya, Phase I Scholar

A topic close to my heart is whether pit bulls should be banned. I got to showcase my pet pit bull during pet night at Summer Study, who is gentle and cuddly. A lot of people think that pit bulls should be banned because they’re supposedly vicious and have the ability to lock their jaw once they’ve bitten. However, this is a myth. Pit bulls are no more or less dangerous than any dog breed.

Any dog can be dangerous if not raised or treated properly. Any medium or large dog can do particular damage. A pit bull could be dangerous, but just as any dog could; pitbulls are just more often portrayed as violent in the media.

Just as we are taught to not stereotype people, we shouldn’t stereotype dogs by their breed. Treat each dog on their own merit and always be cautious when interacting with a dog you don’t know.

Jackbox Games provided Scholars with the opportunity to get to know each other and socialize together via Zoom.

Jackbox Games with the Crew
By Marcos, Phase I Scholar

I really enjoyed playing Jackbox Games. These games support a larger group, with most games playing eight players. The other Scholars make the game more exciting by being good pals to play with and refraining from any behavior that would dull the fun of playing games. My favorite game currently is “Fibbage” a game based of deception and trivia, with honorable mentions to “Trivia murder party” and “Brackeetering.”

During the gaming sessions, Phase I Scholar Braxton was one of the ones who got my attention with his wide knowledge and an ability to see past deception. Staff member Mira also was fun as she was able to trick me for a whole Fibbage game. I loved playing with all the Scholars; I can’t remember the last time I’ve had that much fun with a group of people I don’t know that well.
Richard Ladner has been working with students with disabilities for much of his career, promoting accessible computing education.

**Scholar Favorites**

By Audrey, Iris, Mallory, Raelynn, Anthony, and Michael, Phase I Scholars

Even though Summer Study was different this year than past years, Scholars learned great skills, made connections, and had a blast. Audrey said the things she appreciated most this year was receiving her laptop and learning about college transition. While Anthony wished we could get together on campus, he was still happy to spend so much time getting to know new people. Iris enjoyed the makerspace tour where we learned about lots of engaging equipment available to UW students. We also had some fun evening and weekend social activities. Mallory’s favorites were the Jackbox games and movie nights. We watched *How to Train Your Dragon* and *Finding Dory*, and it was fun to chat about the positive themes of disability in both movies. Many Scholars were balancing jobs and helping out at home while attending Summer Study. Raelynn says she really experienced a lot while balancing starting college two years early with Summer Study. Michael sums it all up with a great quote “I signed up for DO-IT without knowing how much the program would mean to me—it is so much more than college prep. I will never regret joining!” 2020 Scholars stay connected by getting together online at least once a month. We are already looking forward to Summer Study 2021.

**AccessComputing PI Richard Ladner Receives National Science Board 2020 Public Service Award**

By Brianna Blaser, DO-IT Staff

This year, AccessComputing and AccessCSforAll Principal Investigator (PI) Richard Ladner is the recipient of the National Science Board’s 2020 Public Service Award, which honors individuals and groups that have made substantial contributions to increasing public understanding of science and engineering in the United States. World-renowned scientists such as Jane Goodall and Bill Nye are previous recipients of the award. Richard received this award for demonstrating exemplary science communication and diversity advocacy throughout his career.

This award and his work were featured both by the National Science Board in their award announcement (nsf.gov/nsb/news/news_summ.jsp?cntn_id=301029&org=NSB), as well as by the University of Washington Allen School in a feature on their website (news.cs.washington.edu/2020/08/11/the-conscience-of-computing-allen-schools-richard-ladner-receives-public-service-award-from-the-national-science-board/).

“We cannot exclude anyone when it comes to the important pursuit of scientific advancement. Richard Ladner’s work has significantly enlarged the circle of perspectives at the bench, and by welcoming and empowering those with disabilities to fully contribute he has greatly enhanced and advanced our nation’s global leadership in science, engineering, and technology,” stated Victor McCrary, the National Science Board vice chair.

Richard has stated that “I am honored to receive this recognition from the National Science Board and heartened that the scientific community is rising to the important challenge of supporting students with disabilities.”

Congratulations, Richard!
Outcomes of AccessCyberlearning
By Sheryl Burgstahler, CoPI

Over the past two years, AccessCyberlearning 2.0 Synthesis and Design Workshop has conducted exploratory research to inform the design of the next generation of digital learning environments for science, technology, engineering, and mathematics (STEM) content. AccessCyberlearning 2.0 (NSF # DRL-1824540) was the second grant in the AccessCyberlearning initiative led by the DO-IT Center, which have developed synergistic and lasting relationships among researchers, technology developers, and instructors to promote more inclusive online learning.

AccessCyberlearning 2.0 culminated in a white paper about what research and practice is needed to ensure that current and future learning technologies and pedagogy are inclusive of everyone. Collaborators in the effort identified that three sets of principles and respective guidelines and promising practices already exist for guiding researchers and practitioners interested in access for everyone: principles that underpin Universal Design (UD), Universal Design for Learning (UDL), and the Web Content Accessibility Guidelines (WCAG). Applied together, they ensure that physical spaces (e.g., makerspace facilities), teaching and learning curricula and pedagogy (e.g., practices for and design of small group discussions), and IT (e.g., a learning management system) that are used to deliver digital learning opportunities are fully accessible, usable, and inclusive for everyone.


AccessComputing Offers Webinars for Computing Educators and Employers
By Brianna Blaser, DO-IT Staff

AccessComputing can lead online presentations and discussions for your department, institution, organization, or another group of colleagues. These presentations can include specific strategies that your department or organization could utilize to move towards becoming more welcoming and accessible to students with disabilities or how you could include accessibility topics in your instruction or research.

Below is a short list of some of the presentations that we can offer:

- Integrating Disability-Related Topics in a Computing Course
- Accessibility is Becoming Mainstream
- Introduction to Ability-Based Design
- Panel of Students with Disabilities in Computing
- Perspectives of People with Disabilities Regarding Accessibility
- Teaching an Accessible Online Course
- Accessible Online Meetings and Presentations
- Designing Accessible Documents, Videos, and/or Websites
• Accessibility and Third-Party Products and Services
• Universal Design of Teaching and Learning
• Why is Data on Disability so Hard to Collect and Understand?
• US Laws about Accessibility
• Tailor-Made Talk, Panel, or Discussion

Visit Host a Webinar (uw.edu/accesscomputing/host-webinar) for more information about webinars and how to request one for your organization.

20+ Accommodations That You Might Not Know About
By Rochelle Bowyer, DO-IT Ambassador

When making a transition from high school to postsecondary education, there are a lot of things to accomplish before the start of the year. To help with the overwhelming change you are about to embark on, this is a guide of possible accommodations targeted at those who have learning disabilities. It's important to note that even though this article targets those who are neurodiverse, there are many overlapping accommodations for the vast amount of disabilities.

When advocating for accommodations with your Disability Resource Services case manager, they might ask you to explain why these accommodations might be beneficial for your academic success. Be prepared to think about why each accommodation could help you reach your full potential.

In-Class Accommodations
To understand what accommodations might be useful for you, make a list of challenges you might encounter in a class environment.

• Captions and transcriptions
• Priority registration
• Recording lectures

A Scholar uses his augmentative and alternative communication device during an online class to answer questions and speak with his classmates.

• A computer for in-class assignments and notetaking
• Extra time for in-class or quick turnaround assignments
• Access to professors’ notes and powerpoints 24 hours in advance
• All PDFs and in-class material are accessible via a screen reader or other forms of accessible technology
• Textbooks in audio formats
• Notetaker
• Credit reduction
• Loaned accessible technology

Testing Accommodations
Think of past testing experiences and consider which style of tests you received higher grades on. Was it the environment, the content, the style, or the professor’s grading style?

• Extended testing time
• Testing in a quiet or isolated environment
• The ability to type your test answers onto a computer and use grammar checking software
• Foreign language or culture course substitution
• A reader or transcriber
• Not being marked down for grammar errors
• Use of a fidget tool

**Housing Accommodations**
Dorms are your home away from home and should feel like a safe place. Think about what aspects are important and needed for you to feel relaxed and succeed.

• Single room request
• A quiet-specific dorm or hall
• Priority choice in roommates
• Transparency with dietary restrictions (including smell or texture)

**Apply for a Research-Focused Workshop for Undergraduates with Disabilities in Computing Fields**
By Brianna Blaser, DO-IT Staff

*OurCS@AccessComputing+CREATE* is a research-focused workshop for undergraduates with disabilities in computing fields to be held virtually on Wednesday, January 13 through Friday, January 15, 2021.

Students with disabilities nationwide in computing fields are eligible to apply. Students will participate in research explorations designed to inspire participants to consider research careers and meet mentors with disabilities.

Students who participate in the entire program will receive a $50 stipend. Funding for this workshop is provided by Google Explore CSR with additional support from *AccessComputing* and CREATE.

For full consideration, please apply by December 1. Apply now at docs.google.com/forms/d/e/1F41pQLSeXi8LSzyiL6Hmg0IiQmNQ7M5hpIZUn6tD347K4GZcul6t3hQ/viewform?usp=sf_link.

**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

DO-IT
University of Washington
Box 354842
Seattle, WA 98195-4842
doit@uw.edu
www.uw.edu/doit/
206-685-DOIT (3648) (voice/TTY)
888-972-DOIT (3648) (toll free voice/TTY)
509-328-9331 (voice/TTY) Spokane
206-221-4171 (fax)
Founder and Director: Sheryl Burgstahler, Ph.D.
Program Manager: Scott Bellman

**DO-IT News Updates**
For monthly news updates and past newsletters, visit
uw.edu/doit/news