Access Computing NEWS from the Alliance for Access to Computing Careers

Increasing opportunities in computing for people with disabilities

June 2019

AccessComputing PI, Co-PI, and Collaborator Win Awards

By Brianna Blaser, Access Computing Staff

This spring, Access Computing PI Richard Ladner and co-PI Jacob Wobbrock both received awards. Ladner was named the recipient of the 2019 National Center for Women & Information Technology (NCWIT) Harrold and Notkin Award. This award recognizes faculty members who distinguish themselves with outstanding research and excellent graduate mentoring, as well as those who recruit and encourage women and minorities in computing fields.

Ladner mentioned how special it is to receive an award named after his long-time colleague David Notkin, who was a faculty member at University of Washington (UW). Richard received the award at the 2019 NCWIT Summit on Women and information technology (IT). More information is on the NCWIT website (www.ncwit.org/blog/dr-richard-ladner-announced-2019-ncwit-harrold-and-notkin-award-recipient).

Meanwhile, Jacob Wobbrock was inducted into the CHI Academy, which is recognized as the highest honor in the field of human-computer interaction. Each year, the Special Interest Group on Computer-Human Interaction (SIGCHI) recognizes six to eight scholars for their contributions to scholarship and innovation in the field.

Wobbrock said, "I am extremely honored to be inducted into the CHI Academy, and to join such a prestigious group of human-computer interaction pioneers whose contributions I have



Richard Ladner takes a seat to support NCWIT's Sit with Me campaign in support of women in tech.

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Jacob Wobbrock and Alison N. P. Wobbrock, who he insists is a co-recipient of the award

admired for decades. To receive the SIGCHI Social Impact Award two years ago and now to be inducted into the CHI Academy have been the highlights of my professional life, and I feel deeply indebted to the UW Information School, to the design: use: build: (DUB) Group, and to my current and former Ph.D. students and collaborators who have provided the environment and teamwork to make this possible for me" (ischool.uw.edu/news/2019/02/friedman-wobbrock-among-3-uw-faculty-earn-top-honor-hci).

Jen Mankoff, a collaborator of *AccessComputing* and faculty member in UW's Paul G. Allen School of Computing Science and Engineering, was also inducted into the CHI Academy this year. More information can be found at *sigchi.org/awards/ sigchi-award-recipients/2019-sigchi-awards/*.

AccessComputing at NSTA 2019

By Lyla Crawford, Acess Computing Staff

Over 9,000 science educators and administrators converged on St. Louis, Missouri the week of April 11-14 for the 67th Annual National Science Teachers Association (NSTA) National Conference.

NSTA featured more than 1,000 sessions, 800 exhibitor workshops, a variety of keynote and featured speakers, and over 300 exhibitors. *AccessComputing* got to participate in several events:

- We hosted a pre-conference session sponsored by Science Education for Students with Disabilities (SESD) in which participants share new ideas, strategies, and opportunities for opening doors to STEM fields for all students.
- I presented a session titled Equal Access to Science: Universal Design and Students with Disabilities with Rachel Zimmerman-Brachman from NASA Jet Propulsion Lab (JPL). This session was one of the five recommended by NSTA for the day and was featured on a large display in the middle of the conference hall.
- We participated in two share-a-thons, one for middle school teachers and one for high school teachers—hundreds of teachers attended each.

NSTA hosts not only the national conference but several regional conferences each year. For more information visit NSTA (www.nsta.org/).

Strategic CSforALL Resource & Implementation Planning Tool

By Meredith Boyce, *AccessComputing* Team Member

A big thank you to the *AccessComputing* group for enabling me to attend the CSforALL SCRIPT (Strategic CSforALL Resource & Implementation Planning Tool) Symposium at the Scripps Institute of Oceanography in San Diego, California from January 14 – 17. I got to learn about what schools and states are doing to improve K-12 computer science education.

The workshop was aimed at school districts, state departments of education, and partner organizations to help get computer science education into every K-12 school. I shared my work starting an after school computer club at the South Carolina School for the Blind. I hope that with the tools I learned at the



Meredith uses her laptop at the OurCS@ UW+AccessComputing conference in April.

symposium, I can expand our offerings, either during the school day or as part of after school activities.

During the symposium, I led a breakout session abut including students with disabilities in computer science education. The program stimulated some interesting questions and conversations from participants. Some reported that they had never previously thought about including students with disabilities as a target demographic for inclusion. I think it would be ideal if all the districts and states were required to participate in a diversity inclusion session.

I also met and collaborated with 150 education leaders from 14 states. I hope that my message of participation by students with disabilities in computer science will impact someone down the road. If it does, then I have served my purpose to make getting an accessible education easier.

For further reading about CSforALL and the SCRIPT Symposium, consult www. csforall.org/accessibility/ and medium.com/csforall-stories/three-big-ideas-from-the-script-symposiuma85f01b9e3e5.

Study Away Silicon Valley

By Richard Ladner, Access Computing PI

Twenty-five students, including three AccessComputing Team members, from seven different universities, traveled to Silicon Valley from May 20 – 24, 2019, to participate in the Teach Access (teachaccess.org) program Study Away Silicon Valley (SASV) (teachaccess. org/studyaway). The participants visited the accessibility teams at Walmart, Google, Microsoft, Apple, Verizon Media Group, and Facebook where they learned how each company makes their products and services more accessible and usable (bit.ly/27ZACdi). AccessComputing collaborators and partner representatives Kendra Walther and Rob Parke from the University of Southern California, Paul Ruvolo from Olin College of Engineering, and Li Liu from California State University, Northridge joined me as faculty mentors. In addition, there were faculty mentors from Michigan State University and University of Colorado.

Each of the participating companies also provided mentors. One of the mentors from Apple was Jordyn Castor, former student at Michigan State. In her presentation she recalled her first programming experience as a 14-year-old at the National Federation Blind Youth Slam where she programmed chatbots in a workshop sponsored by *AccessComputing*. She said that this experience led to her excitement about computing and to becoming a computer science major in college.



SASV participants interacted with industry and academic mentors over the course of the program.

The students also participated in a week-long design activity where they were divided into six groups with mixed backgrounds (computer science and UX design) and different levels of knowledge about accessibility (little to extensive). Each group met for an hour or two per day to develop an accessibility solution. The week ended with each group giving a presentation about their design. It was very clear that students learned a lot about accessibility during the week.

Three New Features in Able Player 4.0 By Terrill Thompson, *Access Computing* Staff

Able Player (ableplayer.github.io/ableplayer) is a free, open source HTML media player created with accessibility in mind by me, University of Washington technology accessibility specialist Terrill Thompson, and supported in part by AccessComputing. Version 4.0 was released in April and includes three important new features.

First, Able Player now supports Vimeo. For years, Able Player has been capable of playing YouTube videos, but now it can play Vimeo videos as well, with some limitations. For example, a Plus, Pro or Business Vimeo account is required in order to hide Vimeo's default controller. If videos are hosted on a free account, the Vimeo controller and Able Player controller are both shown. Also, Vimeo's captions are built into its playback controls, so if the controls are hidden in favor of using the more accessible Able Player controls, captions are hidden as well. To overcome this limitation, captions must be hosted both on Vimeo (for individuals who access the video there) and on a local web server (for individuals who access the video on a local website with an embedded instance of Able Player).

Second, Able Player now has full support for audio and video playlists. HTML5 has standard markup for adding accessible media to web pages (using <audio> and <video>), including multiple media source



A screenshot from the Working Together: Computers and People with Sensory Impairments video

files in various formats (using <source>) and creating multiple time-stamped text tracks in WebVTT (www.w3.org/TR/webvtt) format (using <track>). Tracks can potentially be provided in various languages, serving any of five purposes (captions, subtitles, chapters, description, and metadata). All of this is made possible with HTML5 for a single audio or video title, but there is no standard markup for connecting all of the necessary components into a full playlist. Able Player 4.0 includes a method for doing exactly that.

Third, Able Player now uses the Web Speech API (https://w3c.github.io/speech-api) to read text-based audio description. As noted, HTML5 provides standard markup for associating a time-stamped text file with a video element for the purposes of description. Previously Able Player supported this by exposing the description text at the appropriate times in an Accessible Rich Internet Applications (ARIA) Live Region, which screen readers could announce. However, this method has many drawbacks. For example, some videos don't have enough silent moments to inject audio description. In those cases, a solution is to pause the video while the audio description is read, then resume playback after the description ends. If a screen reader is reading the description text, there is no way for Able Player to know the user's reading speed, therefore no way to know when the screen reader is finished reading the description. In contrast, the Web Speech API has a callback function, which enables Able Player to resume playback when it's finished reading the description. Additional details about using the Web Speech API for this purpose are provided in one of my recent blog posts titled Audio Description using the Web Speech API (terrillthompson.com/1173).

Now that Able Player 4.0 is out, next steps, both actively underway, are to create an Able Player WordPress plugin and an Able Player module for Drupal 8. These tools will make it much easier for content authors to add accessible videos to their web pages, and will increase adoption and enable accessible video to proliferate throughout the web, including in higher education.

Christopher Caulfield Researches Augmented Reality

By Kayla Brown, Access Computing Staff

AccessComputing Team member and recent Cornell graduate, Christopher Caulfield, has gained some attention for his thesis project about developing augmented reality (AR) software for people who are Deaf or hard of hearing (DHH).

Caulfield and another student, Devon Bain, created an application that could be used to caption one-on-one conversations using off the shelf AR technology. Their prototype uses computer vision and facial recognition to display captions under the speaker's face. This helps people who are DHH maintain eye contact and makes conversations more natural than when captions are displayed on a phone or tablet. *Access Computing* partner Shiri Azenkot worked with the students on this project.

This is just one example of how emerging technologies can be used for accessibility.

To read more about his thesis project visit tech.cornell.edu/news/students-develop-augmented-reality-software-for-deaf-and-hard-of-hearing-individuals or livingwithhearingloss. com/2019/01/15/what-if-your-reading-glasses-also-provided-captions.

AccessCyberlearning 2.0 Institute

By Sheryl Burgstahler, Access Computing Co-PI

Thanks to a new grant from the National Science Foundation (NSF), *AccessComputing's* partner organization, the Disabilities, Opportunities, Internetworking, and Technology (DO-IT) Center, has been able to explore deeper into accessibility and online learning. One of *AccessCyberlearning 2.0's* main tasks is to write a white paper on the topic. The first draft of this paper is being reviewed by collaboration this month.

The white paper stems out of a capacity building institute (CBI) hosted in January, which brought together researchers, graduate students, and leaders in NSF-funded cyberlearning projects to engage with each other and explore how to make digital learning research, products, activities, and resources welcoming to, accessible to, and usable by everyone, including those with disabilities.



AccessCyberlearning participants from across the US came together to discuss accessible digital learning methods and research.

The white paper will offer possible solutions to create a more accessible learning environments. Potential applications of the white paper cut across multiple domains of knowledge, learning contexts, and time spans.

The project will also develop guidelines for how researchers can address disability/accessibility-related issues with respect to designing and testing new technologies, analyzing and reporting outcomes, and designing project activities and resources.

To read the proceedings from the CBI visit www.uw.edu/doit/accesscyberlearning-20-capacity-building-institute-2019.

Academic Careers Workshop

By Richard Ladner, Access Computing PI

After a one year hiatus, the Academic Careers Workshop (ACW), sponsored by the Center for Minorities and People with Disabilities (CMD-IT), was held on May 16 – 19, 2019 in Houston, TX. There were 18 participants who attended, including four people with disabilities. The workshop is for senior graduate students and postdocs soon to be on the academic job market, as well as junior faculty members who are just beginning their academic careers. Experienced mentors led talks, panels, and working groups on grant writing, effective teaching, leadership, and other topics leading toward advancement in academia. Access Computing has been part of the organizing team for the workshop since 2010.



Participants and mentors at the 2019 Academic Careers Workshop

SIGCSE 2019 Trip Report

By Andrew Ko, Access Computing Co-PI

The day I travel to a conference is usually one of eager anticipation. I love the rising energy as we approach the first day of a conference and the sense of connection on the way to a destination. And when I arrive, the payoff: I get to reconnect with many old friends, meet the next generation of scholars who will shape our field, and develop the ideas I might work on in the coming years. Especially for a conference celebrating its 50th anniversary, Special Interest Group on Computer Science Education (SIGCSE) was likely to be quite the party of reminiscing on big ideas and important people and forging new foundation for the next 50 years.

The first event I attended was a half day workshop I co-organized with Richard Ladner on how to integrate accessibility topics into higher education computing courses. Nearly 50 people attended, with about half already teaching some aspect of accessibility in their courses. Some attendees were experts on accessibility but not at all experienced with teaching accessibility. Others were the opposite, struggling to teach accessibility without much expertise in it.

We organized a series of speakers with experience teaching accessibility, and they shared an incredible diversity of integration points, including introductory courses with topical sections, aspects of web development courses, and accessibility capstones. I had planned on speaking about how we've integrated accessibility through our informatics curriculum in our introductory, ethics, web development, and database courses, as well as in numerous electives, but we ran out of time for my presentation.

Interestingly, most people who were teaching accessibility had the autonomy to integrate it. It was very rarely mandated from the top down, nor did leadership prevent anyone from teaching about it. In fact, some people

had entire courses dedicated to accessibility! And at the core of most of these stories, it was because the teacher was personally passionate around integrating accessibility topics in their course.

I think the biggest impact of the workshop was giving everyone a sense of not being alone in their efforts to teach accessibility. Many people shared in rich discussions about pedagogical changes teaching accessibility. Another big impact was giving people a sense of growth: if we're not alone, then we can do bigger things together. And we shall!

You can see a summary of presentations and links to slides from proceedings from the event at www.uw.edu/accesscomputing/resources/what-teach-about-accessibility-acm-sigcse-pre-symposium-2019.

On Thursday, I presented our work on teaching explicit programming strategies (faculty.uw.edu/ajko/publications/teachingstrategies), which is the idea of providing step-by-step procedures for solving various programming problems like debugging, reuse, and testing. We tried teaching these in a summer CS class to adolescents. Our results showed that students found them useful, but that most just couldn't



Saba Kawas shared ideas about teaching accessibility at the SIGCSE conference.

force themselves to slow down and follow the steps. Those that did, however, were much more successful than those that didn't at independently writing programs. I speculated that one challenge could be that most adolescents don't have sufficiently developed executive functioning to regulate their process so strictly. One question that came up was particularly interesting: how much does confidence interact with students' use of the strategies? I shared some anecdotes that would suggest that not using the strategies was related to overconfidence. Students who lacked confidence tended to rely more on the strategies, because they were less sure about how to succeed. I wonder if they were more successful as a result!

On Saturday, another paper of mine was presented. Saba Kawas, who was the lead author of the work, shared our effort exploring how to educate higher education faculty on how to teach about accessibility in their CS courses (faculty.uw.edu/ajko/publications/ teachaccess2). We were exploring the idea of how to provide "micro" professional development by creating a mapping between CS learning objectives and accessibility learning objectives, then linking examples of learning materials for each of these mappings. We made a tool that let CS teachers find those objectives and quickly connecting them to relevant material. However, our goal was not to build the tool, but to build enough of a prototype to assess whether such a tool would actually help. Our results showed that some faculty felt they could use the content immediately; others still faced personal, organizational, or structural barriers to incorporating accessibility topics into their courses. Nevertheless, our evidence suggested that investing in creating such online materials could have a lot of impact if adequately marketed.

I'm excited to see everyone I missed next year in my home town of Portland, Oregon! Read my full blog post on SIGCSE 2019 at *medium*. *com/bits-and-behavior/sigcse-2019-trip-report-celebrating-50-years-b3460835a09a*

STEM for All Video Showcase

By Andrew Ko, Access Computing Co-PI

During the week of May 13th, the 2019 STEM for All Video Showcase took place online, bringing together 800 presenters to share 242 short videos highlighting innovations in STEM education. The showcase had a very broad reach, including nearly 50,000 unique visitors from 158 countries.

This year, *AccessComputing* included a video on teaching accessibility (videohall. com/p/1377). Viewed more than 500 times, the video covered the need for universities to teach about accessibility in computing and information courses, to prepare future software engineers to create more accessible software. The video shared some of AccessComputing's research on barriers to teaching accessibility, which shows that many higher education computing faculty are interested in teaching about accessibility, but don't feel they have the necessary expertise or the materials. The video also shared successful examples of integration, such as interleaving knowledge about web accessibility and screen readers in web development courses.

The discussion of the video show case was wide ranging. Many shared ideas about how to integrate accessibility into CS curricula. Some shared their personal experiences teaching about accessibility. Others discussed opportunities to teaching accessibility alongside ethics and policy and the importance of integrating it in the earliest computing courses that students take.



AccessComputing's video on the STEM for All Video Showcase website.



Participants from the March AccessINCLUDES CBI represented many INCLUDES projects from across the US.

Engagement with INCLUDES Network

by Sheryl Burgstahler, Access Computing Co-PI

I represented our AccessComputing and other projects at the NSF INCLUDES National Network Convening: Advancing Equity in STEM May 29-30 in Alexandria, Virginia. This event was supported by the NSF to bring together principal investigators (PIs) and other leaders of projects funded by NSF's initiative called INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science). The DO-IT partner in AccessComputing has secured two grants through this initiative that complement what we are doing in INCLUDES. At the meeting I hosted a poster session on our two projects and co-led two sessions with Chris Atchison of the University of Cincinnati on how to better address accessibility issues within all funded INCLUDES projects.

AccessINCLUDES (HRD-1834924) shares knowledge and results from disability-focused projects and organizations in order to make other INCLUDES projects better prepared to include people with disabilities in their activities and research. Our *ERC-INCLUDES* project (EEC-1028725) fosters collaborations between NSF Engineering Research Centers and the INCLUDES national network. For more information about these projects,

consult, respectively, www.uw.edu/doit/ programs/accessincludes and www.uw.edu/doit/ programs/accesserc/overview/erc-includes.

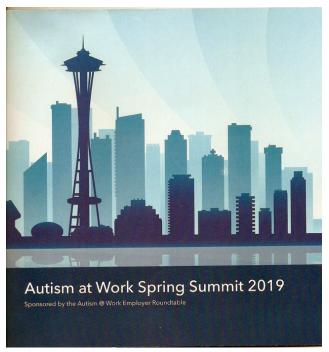
Autism at Work Summit

By Richard Ladner, Access Computing PI

The Autism at Work Summit 2019 was held May 30-31, 2019 on the Microsoft campus in Redmond, WA. The conference, sponsored by the Autism@Work Employer Roundtable, brought together about 180 participants from a wide range of stakeholders including representatives from companies that have autism hiring programs or are planning to create one. Other participants included representatives from employment support agencies, university and industry researchers, government agency representatives, parents of children with autism, and advocates with autism.

The Summit was emceed by Scott Robertson, an autistic adult who serves as a policy advisor on Employment-Related Support (ERS)
Team for the U.S. Department of Labor's Office of Disability Employment (ODEP).
The keynote address was given by Rob Austin, a professor of information systems at Ivey Business School and co-author of the 2017 article in the Harvard Business Review titled "Neurodiversity as a Competitive Advantage." He argued forcefully for companies hiring a diverse workforce to improve on innovation. His view of diversity included people who are autistic.

There were a number of panels and breakout sessions representing employers, employee support people, researchers, and advocates with autism. Employers talked about their autism hiring programs. Individuals who support employees talked about their work in helping companies do a good job of managing a diverse workforce and about their work as job coaches for employees with autism. Researchers talked about the many research problems that need to be studied to inform the



Autism at Work Spring Summit 2019

practices of employers, people who support employees, and employees with autism. These problems fell into five categories: preparation, hiring, on-boarding, retention, and advancement.

The people with autism who talked about their experiences and their points of view were very diverse. Questions about disclosure, workplace environment, and misunderstandings were all paramount. There was no agreement on when and if to disclose. There was agreement that open workspaces are not good. There was agreement that knowledge of neurodiversity and acceptance by managers and colleagues were very important. Reid Caplan, associate director of advocacy and development at the Autistic Self Advocacy Network (autisticadvocacy.org/) was passionate about the prospect that special autism hiring programs should not be needed in the future because the mainstream hiring process will be universally designed to work for everyone.

Learn more about Autism at Work and Microsoft's initiatives for hiring people with disabilities at www.microsoft.com/en-us/diversity/inside-microsoft/cross-disability/hiring.aspx.

CSforAll Seeks New Commitments

By Brianna Blaser, Access Computing Staff

This year, the CSforAll Summit (summit. csforall.org/) will be held October 21-23 in Salt Lake City, UT. The event brings together organizations—school districts, researchers, government, non-profits, and more—committed to K-12 computer science education across the country. This year, the CSforALL Summit has posted a new Call for Commitments, which includes "new, specific, and measurable actions taken by community stakeholders in support of achieving the ultimate goal of computer science for all US students."

Last year, we encouraged many of our partners to make commitments related to increasing the accessibility of K-12 computer science (CS) education. Over 100 organizations have signed the accessibility pledge that was launched last summer (www.uw.edu/ accesscomputing/resources/accesscomputingnews-february-2019/accessibility-pledge-k-12-computer-science-education). At the 2019 Summit, the CSforAll Consortium will share about progress and outcomes resulting from the accessibility pledge (medium.com/ csforall-stories/northrup-grumman-invests-incomputer-science-education-for-students-withdisabilities-dded7caea1e8). We'd love to see more organizations sign the pledge and make commitments related to accessibility this year.

Find more information at *summit.csforall.org/ commitments*.



CSforALL logo



Our CS@UW+Access Computing brought together students and mentors in an interactive research-focused workshop on UW campus.

OurCS@UW+AccessComputing

By Brianna Blaser, Access Computing Staff

OurCS@UW+AccessComputing, a two-day research-focused workshop for undergraduate women with disabilities in computing fields, was held April 11 – 13 in the new Gates Center at the UW. Students from universities nationwide were immersed in an interactive workshop with mentors from UW, other universities, and Google.

Thirty-six students with disabilities from across the country participated in research explorations with faculty, graduate students, and professional mentors. The explorations focused on accessibility-related topics including app accessibility, accessibility of design methods, fabrication for accessibility, social robots for mental health, accessible virtual reality, and teachable machines for sign language. Working in small groups with mentors, students explored these areas and presented on their findings. Students joined the *AccessComputing* team and will continue to engage with each other and *AccessComputing*.

OurCS@UW+AccessComputing also featured keynote presentations by mentors with disabilities. Jen Mankoff, the Richard E. Ladner Professor in UW's Paul G. Allen School of Computer Science & Engineering, gave a keynote that looked at ways that her research interests evolved over time as her

disability changed. Shiri Azenkot, assistant professor of information science at the Jacobs Technion-Cornell Institute at Cornell Tech, Cornell University, gave a keynote that focused on navigation for individuals with low vision.

Funding was provided by Google Explore CSR, the Paul G. Allen School of Computer Science & Engineering, and *AccessComputing*.

URMD Grad Cohort

By Richard Ladner, Access Computing PI

The second annual CRA Grad Cohort for Underrepresented Minorities and Persons with Disabilities (URMD) was held in Waikoloa, Village on the Island of Hawaii on March 22-23, 2019. The event, organized by the Computing Research Association (CRA), is for computing graduate students in their first three years to learn how to navigate and



Team member Ather Sharif, his partner Trung Anh Nguyen, and team member Andrea Lane in Hawaii for the URMD grad cohort.

persist in their programs. About 150 students, including roughly 20 who reported a disability, and 25 mentors attended the workshop.

AccessComputing was a Silver Sponsor with the commitment to fund 10 students with disabilities to attend the workshop. Among the mentors were our Access Computing partners, Raja Kushalnagar from Gallaudet University, Shiri Azenkot from Cornell Tech, Ayanna Howard from Georgia Tech, Dilma Da Silva from Texas A&M, and Shaun Kane from the University of Colorado. Many topics of interest to first to third year graduate students were included in presentations, active breakouts, and panels. Among them were networking, publishing, life balance, industry vs. academia, job search, communication skills, cultural barriers, finding an advisor, and building a professional persona. One particular breakout, titled "Empowerment of People with Disabilities" and lead by Shaun Kane and Richard Ladner, was about strategies to help students with disabilities successfully advocate for themselves and maximize their abilities. There were many opportunities for one-onone mentoring during breaks and at scheduled mentoring sessions.

Learn more about URMD and access resources available at *cra.org/ events/2019-urmd-grad-cohort*.

Accessibility Protests at SIGCHI

By Megan Hofmann, Access Computing Collaborator

Accessibility is hard, but it is also critically important. Accessibility is a core value of CHI, the flagship conference of the human-computer interaction (HCI) field. HCI is driven by understanding and supporting people, leading to technological innovation. Despite this value, SIGCHI, CHI's parent organization, struggles to make it's 24 conferences accessible.

AccessSIGCHI is a dedicated group of volunteers who are leading the charge toward more accessible computing conferences. However despite their efforts, many of these conferences are woefully inaccessible. Tensions have been rising as these volunteers are ignored and disempowered. Finally this year, the tensions broke as the CHI conference struggled to overcome the outdated, cramped, inaccessible infrastructure of the Glasgow Convention Center. Numerous attendees with disabilities were excluded from the conference because of the accessibility barriers that volunteers had been anticipating for months. Students and faculty, many with disabilities, organized a "crip-In" where protestors sat at the entrance to the town hall meeting. Holding signs for the whole conference to see, protestors with disabilities told their SIGCHI stories.

The protest was successful, prompting SIGCHI leaders to work with these volunteers to take concrete actions towards conference accessibility. Together efforts have begun to increase representation of disabled people; provide accessibility budgets to all SIGCHI conferences; create clear, enforceable guidelines for accessibility; and increase publication accessibility. Ultimately these are only small steps towards complete accessibility, but they have the momentum necessary to create an accessible community. Through protest, SIGCHI is embracing the endeavour towards an accessible world.



Protestors at the Crip-In at SIGCHI 2019 in Glasgow

For updates on SIGCHI accessibility please visit the AccessSIGCHI facebook page at www.facebook.com/groups/SIGCHIaccess/.

About AccessComputing

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