



TECHNOLOGY AND DISABILITY POLICY HIGHLIGHTS – OCTOBER 2020

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OVERVIEW

In October, the federal government acknowledged the 75th observance of National Disability Employment Awareness Month (NDEAM). The Office of Disability Employment Policy (ODEP) in the U.S. Department of Labor commemorated the occasion with various events and activities based on this year's theme: "Increasing Access and Opportunity." ODEP also provided employers and companies with [31 Days of NDEAM](#), a list of ways NDEAM can be celebrated.

In legislative news, the *Online Accessibility Act* [**H.R. 8478**] was introduced in Congress. The Act aims to amend the *Americans with Disabilities Act* (ADA) to include a website accessibility compliance standard and provide a "predictable regulatory environment" for online retailers and commerce to ensure equitable access for all customers. This legislation comes in light of the COVID-19 pandemic underscoring the need to address website accessibility, as the country has become unprecedentedly reliant on digital interactions.

In regulatory news, the Federal Communications Commission (FCC) presented the [2020 Biennial Report to Congress](#) as required by the *Twenty-First Century Communications and Video Accessibility Act (CVAA) of 2010*. In this Report, the FCC recounts biennial data, findings, and recommendations regarding advancements in the accessibility of telecommunication and advanced communications services and equipment. The Report cited the Wireless RERC thirty-three (33) times, and these citations include our comments, filings, and reports over the last two years. [See Wireless RERC news for a detailing of our comments' inclusion](#) in the *2020 Biennial Report to Congress*.

Also, in Wireless RERC news, we continue data collection for our [2020 Survey of User Needs](#). If you haven't already, please take the [survey](#). Georgia Tech's Center for Advanced Communications Policy, and the home of the Wireless RERC, is also seeking any U.S. residents aged 65 or older AND adults with disabilities (any age 18 and up) to [take a survey of COVID-19 Information Access](#).

This issue also included news about broadband, audio description, artificial intelligence, autism, an exosuit, hearables, voting access, wearables, and robotics.

LEGISLATIVE ACTIVITIES

LEGISLATION GUIDING WEBSITE ACCESSIBILITY IS UNDERWAY

October 26, 2020 – The *Online Accessibility Act* [**H.R. 8478**] was introduced to Congress on October 1st by Congressmen Lou Correa (D-CA) and Ted Budd (R-NC). The *Online Accessibility Act* (OAA) aims to amend the *Americans with Disabilities Act* (ADA) to include a website accessibility compliance standard and limit private parties' lawsuits until other remedy options are exhausted. In recent years, the number of online retailers has drastically increased as digital commerce continues to grow. However, along with this growth came substantial website access lawsuits. More website access lawsuits have been filed against retailers than any other type of claim. COVID-19 has brought the lack of website compliance regulations back into the limelight as many consumers rely on online services for basic needs.

The Act aims to provide a “predictable regulatory environment” for online retailers and commerce to ensure equitable access to all customers. Current website accessibility compliance available to retailers is the Web Content Accessibility Guidelines (WCAG). However, WCAG is not enforceable by law. The OAA would consider online businesses and websites compliant with accessibility standards if their site had “substantial compliance” with WCAG guidelines. Right now, the OAA is under review in the House Energy and Commerce Committee, but phrases like “substantial compliance” have yet to be defined. [Sources: 116th Congress, Steptoe & Johnson LLP via Lexology]

ADDITIONAL INFORMATION:

[Relief at Last? Proposed 'Online Accessibility Act' Gives Retailers Hope on ADA Cases](https://www.lexology.com/library/detail.aspx?g=94702d53-e71b-4fb2-a3ef-b8419a68bc48)

<https://www.lexology.com/library/detail.aspx?g=94702d53-e71b-4fb2-a3ef-b8419a68bc48>

[All Information \(Except Text\) for H.R.8478](https://www.congress.gov/bill/116th-congress/house-bill/8478/all-info?r=2&s=1)

<https://www.congress.gov/bill/116th-congress/house-bill/8478/all-info?r=2&s=1>

REGULATORY ACTIVITIES

NEW REGULATIONS ENCOURAGE BROADBAND COMPETITION FOR IMPROVED CONNECTIVITY

October 27, 2020 – The *Telecommunications Act of 1996* aimed to ensure that all Americans had access to broadband services through a competitive market. It was common for many areas of the country to have incumbent local exchange carriers (LECs) who held monopolies over a local market. The *Telecommunications Act of 1996* required these LECs to provide unbundled network access to new telecommunications carriers who sought to enter a local market. Unbundled network access is

when LEC incumbents give new providers competitive access to their high-speed Asymmetric Digital Subscriber Line (ADSL) data connection at regulated rates. These new providers did not receive access to the incumbents' actual copper wire. The purpose of these rules sought to ensure that Americans would have competitive options for networks and broadband services.

This month, the FCC terminated legacy unbundling and resale rules where they "stifle technology transitions and broadband deployment but preserve unbundling requirements where they are still necessary to realize the 1996 Act's goal of robust intermodal competition benefiting all Americans." The FCC believes that markets dominated by monopoly incumbents have drastically decreased, and this model has been replaced by vigorous intermodal competition. The Report and Order [**FCC 20-152; WC Docket No. 19-308**] published this month does have certain conditions to this regulation, including:

- The Order ends DS1 and DS3 loops, which are legacy last-mile lines, unbundling requirements in areas with sufficient evidence of competition but keeps them in place in areas that lack sufficient competition.
- The Order eliminates unbundling DS0 Loops requirements, which are network elements typically used to provide both voice and broadband service using various Digital Subscriber Line technologies.
- The Order removes unbundling obligations for Legacy Narrowband Voice-grade Loops nationwide.
- The Order eliminates unbundling requirements for Dark Fiber Transport "originating or terminating from a wire center within a half-mile of competitive fiber networks.

[Source: FCC]

ADDITIONAL INFORMATION:

[FCC Modernizes Unbundling and Resale Requirements](https://www.fcc.gov/document/fcc-modernizes-unbundling-and-resale-requirements)

<https://www.fcc.gov/document/fcc-modernizes-unbundling-and-resale-requirements>

AUDIO DESCRIPTION EXPANSION FOR MORE ACCESSIBLE TELEVISION PROGRAMMING

October 27, 2020 – The FCC published a Report and Order [**FCC 20-155**] that extended audio description requirements to an additional ten designated market areas (DMAs) each year for the next four years for a total of 40 DMAs. The FCC concluded that the requirement for additional DMAs to provide audio description requirements would only occur if the costs of expanding are "reasonable" for program owners, providers, and distributors. Currently, the FCC requires the top 60 DMAs to provide audio descriptions for television programming. These new audio description requirements expand to an additional 10 DMAs each year beginning January 1, 2021. This ruling

will be reevaluated in 2023 to determine whether the FCC should proceed with its continued expansion. This Report and Order also accepted a recommendation from the Disability Advisory Committee replacing the term “video description” with “audio description,” which will provide continuity in terminology across federal agencies. [Source: FCC]

ADDITIONAL INFORMATION:

[FCC Expands Audio Description of Video Content to More TV Markets](https://www.fcc.gov/document/fcc-expands-audio-description-video-content-more-tv-markets)

<https://www.fcc.gov/document/fcc-expands-audio-description-video-content-more-tv-markets>

DELIVERABLES PRODUCED AT DISABILITY ADVISORY COMMITTEE MEETING

October 14, 2020 – The FCC’s Disability Advisory Committee (DAC) held its fourth meeting virtually this month and produced two recommendations for the FCC. The first recommendation, Near-Term Efforts to Improve ENT Generated Live Captions, provides best practices on implementing and using the improved Electronic Newsroom Technique (ENT). There are seven overarching guidance items for broadband stations to ensure compliance with best practices. Some of the guidance focuses on text alternatives to visual information by ensuring ENT coordinators have access to the ENT Coordinator Toolkit. The Toolkit encourages stations to give the script a direct URL to detailed summaries of the news presented via its website. The second recommendation, Audio Description Quality, provides resources and best practices on the universal principles for creating audio descriptions. The DAC then recommended that the FCC make these resources available upon request and place the resources (attached as an Appendix) on their website. [Source: FCC]

ADDITIONAL INFORMATION:

[Disability Advisory Committee](https://www.fcc.gov/consumer-governmental-affairs/about-bureau/disability-rights-office/disability-advisory-committee)

<https://www.fcc.gov/consumer-governmental-affairs/about-bureau/disability-rights-office/disability-advisory-committee>

FCC PRESENTS BIENNIAL CVAA REPORT TO CONGRESS

October 7, 2020 – The FCC published their *2020 Biennial Report to Congress* [**CG Docket No. 10-213; DA 20-1164**] as required by the *21st Century Communications and Video Accessibility Act (CVAA) of 2010*. The Report focuses on three specific provisions of the CVAA: sections 255, 716, and 718. As it pertains to Sections 255 and 716, Telecommunications and Advanced Communications Services and Equipment, the FCC indicates that they found “significant improvements” in the accessibility of this space. They based this conclusion on the following findings: (1) smartphones continue to innovate and incorporate technologies and features that enable improved access to telecommunications and advanced communications services; (2)

speech-to-text and text-to-speech technology, voice assistants, and screen readers continue to advance; and (3) newer devices have improved compatibility with assistive technologies.

However, the FCC did note that accessibility gaps remain in the following areas: (1) the availability of accessible mobile phones with low-end features, functions, and prices (feature phones) for people who are blind and (2) certain apps that were not screen reader-accessible. The FCC also noted that accessibility and usability are intertwined. They asserted that telecommunications devices' usability is increasing in many ways for consumers, but some customers still face some challenges in finding accessible information. The FCC concluded the Report with how they have addressed accessibility complaints over the last two years and their plan to continue monitoring the communications field. Throughout this Report, the FCC cited the Wireless RERC's filings, comments, and reports thirty-three times from the last two years. See Wireless RERC news for a detailing of our comments included in the *2020 Biennial Report to Congress*. [Source: FCC]

ADDITIONAL INFORMATION:

[2020 CVAA Biennial Report to Congress](#)

<https://www.fcc.gov/document/2020-cvaa-biennial-report-congress>

IN CELEBRATION OF THE CVAA'S 10TH ANNIVERSARY, FCC AWARDS ACCESSIBILITY

October 8, 2020 – To celebrate the tenth anniversary of the *21st Century Communications and Video Accessibility Act (CVAA) of 2010*, the FCC held an awards program. Ajit Pai, Chairman of the FCC, awarded Karen Peltz Strauss, Claude Stout, and Tom Wlodkowski for their contributions to accessible technology and inclusive policy. Strauss, a previous FCC staffer, authored groundbreaking accessibility legislation and was involved in authoring Sections 255 and 305 of the Telecommunications Act of 1996, along with Title IV of the Americans with Disabilities Act, the Circuitry Act of 1990 (which requires televisions to display closed captions), and the CVAA. Like Strauss, Stout has dedicated his career to accessibility. He spent nearly two decades advocating for equal access to telecommunications for people who are Deaf and hard of hearing. He helped develop the CVAA and was a part of various organizations, including the Coalition of Organizations for Accessible Technology. Finally, Wlodkowski has advocated for people with disabilities and broadband connectivity for over thirty years. He worked with the WGBH media access group, which oversees the Descriptive Video Service, Caption Center, and the National Center for Accessible Media. In addition to the awards ceremony, the event included a panel discussion on the CVAA's major milestones and a look at the challenges that lie ahead. The co-chairs of the Disability Advisory Committee attributed the industry's progress to the CVAA and the fact that regulations were stated

as goals rather than directives, giving the industry the freedom to innovate. [Source: Liana Sowa via Broadband Breakfast]

ADDITIONAL INFORMATION:

[With Anniversary Awards, FCC Recognizes Role of Communications Technology for People With Disabilities](#)

<http://broadbandbreakfast.com/2020/10/with-anniversary-awards-fcc-recognizes-role-of-communications-technology-for-people-with-disabilities/>

RURAL BROADBAND PROVIDERS PROCEED WITH DISCOUNTS FOR LOW-INCOME CUSTOMERS

October 1, 2020 – The FCC initiated efforts to help students from low-income families to connect to remote learning by allowing rural broadband providers to provide financial discounts to families in need. The National Exchange Carrier Association partnered with the FCC’s Wirelines Competition Bureau to revise broadband tariffs. Tariffs are comprised of rates, terms, and conditions of a particular service that telecommunications carriers provide. These tariff revisions will grant eligible new customers who have a rural telecommunications provider with a 25% discount on set broadband services. The tariff revisions will also grant existing customers with free upgrades for faster broadband connectivity. These new tariff regulations went into effect on October 1, 2020, and will remain in effect until the end of June 2021. The FCC noted that rural broadband carriers participating in this initiative would notify the communities they serve and verify eligible customers for these discounts. [Source: FCC]

ADDITIONAL INFORMATION:

[FCC, Rural Providers Collaborate on Broadband for Low-Income Students](#)

<https://www.fcc.gov/document/fcc-rural-providers-collaborate-broadband-low-income-students>

WIRELESS RERC NEWS

WIRELESS RERC RESEARCH INFORMS THE FCC’S 2020 BIENNIAL REPORT TO CONGRESS

October 2020 — The FCC submitted a [2020 Biennial Report to Congress](#) required by the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA). In preparation for the Report, the FCC issued a *Public Notice* that sought public comments on the accessibility of existing products and new accessibility barriers since the 2018 CVAA Biennial Report's release. Following this, the *Tentative Findings Public Notice* was released,

and the [Wireless RERC's comments](#) on this Notice have been referenced thirty-three times throughout the Report.

The first set of Wireless RERC observations included in the Report concerned smartphone accessibility. The Wireless RERC is referenced regarding its comment that its study included people who have "vision, hearing, cognitive, and mobility disabilities" and that the accessibility and usability of devices have "steadily increased," but that "some gaps remain." The Wireless RERC observation that voice technology helps people with cognitive disabilities send texts and emails is also noted. Regarding smart speakers, the Wireless RERC statement that the "inability of smart speakers to understand atypical speech patterns presents an accessibility barrier" is quoted. Additionally, Wireless RERC observations on Google's Project Euphonia are noted -- how the project is seeking to make speech recognition systems accessible to people with atypical speech patterns through improved speech-to-text transcription for people who have significantly slurred speech.

The next set of Wireless RERC comments included are about alternative smart technologies. The Wireless RERC finding that successful technologies developed on smartphones are being replicated in other use cases is included, noting that the Wireless RERC survey included questions on smart speakers, tablets, smartwatches, and smart eyeglasses. The Wireless RERC finding about the recent inclusion of voice assistants with smart devices is also noted. Next, the Report includes the Wireless RERC's note that smart speakers can enable users who are blind to access news and information and control smart home technologies independently. However, the Report includes the Wireless RERC comment that despite this, some smart home devices still require users with vision disabilities to rely on sighted assistance and that improving voice controls to match in-app options would improve device accessibility. Finally, this section of the Report recognizes the Wireless RERC's assertion that users need more guidance on the available features that can be activated through voice control.

In relation to pairing with peripheral devices and related functionality, Wireless RERC support for the continued incorporation of "device-to-device connectivity" is noted. As Wireless RERC states, inter-device connectivity allows people with disabilities to use external assistive technologies, boosting their use of Internet of Things (IoT) devices that advance independent living and social inclusion. The Wireless RERC observation that biometric login is being included more broadly and limits dependency on memory and mobility/dexterity when unlocking a device is also noted.

Following pairing, comments about improvements in accessibility are included. The Wireless RERC noted that accessibility and usability have generally improved for "people with vision

disabilities.” Further, the Wireless RERC commented that feature phones include various accessibility features like built-in text-to-speech, full access screen reader, braille access, and more are included in the Report. With regards to software updates in feature phones, the Wireless RERC statement that system updates have negatively impacted the user’s configuration of accessibility options was included in the Report to Congress. Overall, the Wireless RERC findings highlighted that mobile phones' accessibility has continued to improve, with most smartphone users being able to use them without help from other people.

Regarding usability, the Wireless RERC statement that sometimes providers do not provide an easily discoverable way to locate relevant information about accessibility features. The Wireless RERC is quoted in saying that the “difficulty in locating information about specific features is in itself an important result, [...] as people with disabilities may have functional limitations [in comparing phone models] that necessitate certain accessibility features for the phone to be usable by them (e.g., video calling capabilities, HAC, screen reader, AT connection.” To address this barrier, the Report includes the Wireless RERC recommendation to train in-store employees about disability etiquette and accessibility features and provide a stable method of in-store customer support for those with disabilities.

In conclusion, concerning continued industry partnerships, the Report highlights the Wireless RERC encouragement for mobile manufacturers “to continue to incorporate users with disabilities into all stages of the design process” to improve accessibility and usability.

ADDITIONAL INFORMATION:

[Read the Wireless RERC’s Comments](#)

[https://ecfsapi.fcc.gov/file/1080426285659/Aug%202020%20wRERC%20Comments-%20CVAA%20Preliminary%20Findings%20\(Final\).pdf](https://ecfsapi.fcc.gov/file/1080426285659/Aug%202020%20wRERC%20Comments-%20CVAA%20Preliminary%20Findings%20(Final).pdf)

[2020 CVAA Biennial Report to Congress](#)

<https://www.fcc.gov/document/2020-cvaa-biennial-report-congress>

[Read the Wireless RERC’s *Biennial Review of Mobile Phone Accessibility*](#)

http://www.wirelessrerc.gatech.edu/sites/default/files/publications/2020_analysis_of_mobile_phones_final.pdf

IF YOU HAVEN’T ALREADY, TAKE AND SHARE THE LATEST SURVEY OF USER NEEDS!

The SUN is the Wireless RERC's cornerstone survey on wireless technology use by people with disabilities. This latest version has been updated in response to changes in technology. In addition to questions about cell phone and tablet use, this version of the SUN collects information about wearables, "smart" home technologies, and other next-generation wirelessly connected devices.

Your responses will:

- Help designers and engineers make more accessible wireless devices, features, and services for people with disabilities, and
- Inform recommendations to better ensure inclusive policies and practices.

If you have a disability, please consider taking this survey. If you know someone who has a disability, please send the survey to them.

Take the survey online at <http://bit.ly/wRERC-SUN2020>, or

Scan the QR Code to open the survey on your mobile device, or

Take the survey via phone, call 404-839-8741.



SURVEY ON ACCESS TO COVID-19 INFORMATION

Information and messaging about the novel coronavirus disease (COVID-19) can be received in a variety of ways and from many sources. As events unfold, how information is shared with the public varies widely, from traditional news to social media and mobile alerts. Early messaging about COVID-19 focused on its severity for older populations and those with underlying conditions, but *did those most vulnerable to serious illness from COVID-19 receive timely and accessible emergency information and messaging?*

Georgia Tech's Center for Advanced Communications Policy, and the home of the Wireless RERC, is interested in knowing which COVID-19 information sources you rely on and trust, if the information is in formats that are accessible to you, and whether you received the messages in a timely manner. Your responses will be used to make recommendations for more effective preparedness and response messaging strategies and planning for older adults and people with disabilities. This research aims to ensure the same timely and effective access to emergency information for people with disabilities and older adults.

The survey is open to any U.S. residents aged 65 or older AND adults with disabilities (any age 18 and up). We encourage you to take the survey yourself and share it with friends, family, and colleagues so they too can provide their responses. As an incentive for taking our survey, you can enter a drawing to win 1 of 12 \$25 Amazon gift cards.

[Start the Survey!](#)

https://gatech.co1.qualtrics.com/jfe/form/SV_0lfKrBbcvaG7Z0p

If you wish to take the survey over the phone or relay service, please email [Salimah LaForce](#) to schedule a time.

OTHER ITEMS OF INTEREST

NATIONAL DISABILITY EMPLOYMENT AWARENESS MONTH (NDEAM) CELEBRATIONS

October 2020 – This year was the 75th observance of NDEAM celebrating the contributions and achievements of people with disabilities. The Office of Disability Employment Policy (ODEP) in the U.S. Department of Labor commemorated this momentous occasion with various events and activities based on this year’s theme: “Increasing Access and Opportunity.” Office of Disability Employment Policy (ODEP) Deputy Assistant Secretary Jennifer Sheehy stated that “people with disabilities are experienced problem solvers with a proven ability to adapt [and] now more than ever, flexibility is important for both workers and employers. National Disability Employment Awareness Month celebrates the ingenuity people with disabilities bring to America’s workplaces.” ODEP also provided employers and companies with a list, named [**31 Days of NDEAM**](#), full of ways that NDEAM can be recognized. To highlight a few activities from the list, we share our favorites:

- Day #2 – Review company policies
- Day #3 – Train supervisors
- Day #4 – Educate employees
- Day #6 – Participate in Disability Mentoring Day
- Day #11 – Educate about disability history
- Day #25 – Share the "Because" PSA
- Day #26 – Share the "I Can" PSA
- Day #29 – Proactively recruit people with disabilities
- Day #30 – Get tech-savvy

[Source: Office of Disability Employment Policy]

ADDITIONAL INFORMATION:

[31 Days of NDEAM – What you CAN do!](#)

<https://www.dol.gov/agencies/odep/initiatives/ndeam/ideas>

AI APP TO ENABLE EARLY DETECTION OF AUTISM

October 2020 – Cognoa, a pediatric behavioral health platform, developed a smartphone application that uses artificial intelligence to diagnose children with autism. The creators hope that the app, which is in the process of being approved by the U.S. Food and Drug Administration, will speed up a detection process that is backlogged by several months. To use the tool, parents answer a brief questionnaire about their child’s behavioral patterns and upload two videos of their child in a natural environment. The videos are sent to a trained professional and the child’s

pediatrician, who record their observations in the app. These inputs are fed into Cognoa's algorithm and compared with a dataset consisting of thousands of other cases, covering different races, genders, and backgrounds. Reportedly, using the tool's insights, a pediatrician can diagnose a child with autism. By using machine learning on a rich dataset, Cognoa also aims to address irregularities such as children in Black and Hispanic communities not being diagnosed and girls being diagnosed later than boys. The company has implemented a clinical trial involving 425 children. The results of this study are yet to be published, but having been awarded breakthrough status by the FDA in 2018, Cognoa is aiming to roll out its product during the second half of 2021 [Source: Venkat via Assistive Technology Blog]

ADDITIONAL INFORMATION:

[A New AI Enabled App By Cognoa Aims To Help Diagnose Autism In Children](https://assistivetechblog.com/2020/10/a-new-ai-enabled-app-by-cognoa-aims-to-help-diagnose-autism-in-children.html/amp)

<https://assistivetechblog.com/2020/10/a-new-ai-enabled-app-by-cognoa-aims-to-help-diagnose-autism-in-children.html/amp>

VANDERBILT ENGINEERS BUILD EXOSUIT THAT REDUCES BACK FATIGUE

October 2020 – Vanderbilt University engineers have determined that their back-assist exosuit, a device that supports human movement and posture, can reduce fatigue in lower back muscles by an average of 29–47 percent. This is a promising new development for individuals who work in physically demanding fields and are at risk for back pain, including medical professionals and frontline workers. The research, led by Assistant Professor of Mechanical Engineering Karl Zelik and recent Ph.D. graduate Erik Lamers, measured changes in low back muscle fatigue in participants who were given physical tasks to perform both with and without the exosuit. Findings were published in the *Nature* journal *Scientific Reports*.

The low-profile, flexible exosuit applies forces assistive to the lower back extensor muscles to relieve strain on the muscles and spine and help reduce the risk of injury. Zelik, a former collegiate athlete, knows first-hand that intensive physical activity can fatigue the body. He also understands the importance of building the exosuit with inclusive design practices. "We are thrilled that this research helped lead to the first commercial exosuit or exoskeleton designed with both male and female fits," Zelik said. Since completion of this study, the exosuit will be commercialized by HeroWear, subject to a license from Vanderbilt University. [Source: Vanderbilt News]

ADDITIONAL INFORMATION:

[Vanderbilt wearable exosuit that lessens back muscle fatigue could redesign the future of work](https://news.vanderbilt.edu/2020/09/29/vanderbilt-wearable-exosuit-that-lessens-back-muscle-fatigue-could-redesign-the-future-of-work/amp/)

<https://news.vanderbilt.edu/2020/09/29/vanderbilt-wearable-exosuit-that-lessens-back-muscle-fatigue-could-redesign-the-future-of-work/amp/>

HYDERABAD, INDIA, CITIZENS WIN DESIGN AWARDS FOR ACCESSIBILITY INITIATIVES

October 2020 – In India, conservative estimates put the population of people with disabilities at 70 to 100 million. The National Centre for Promotion of Employment for Disabled People (NCPEDP) recognizes significant contributions towards accessibility with the NCPEDP-Mphasis Universal Design Award. Two people from Hyderabad, Raghavendra Satish Peri, and Dr. Srinivas Puppala, are among the award winners.

Raghavendra, a web designer with a vision disability, built the first team of accessibility specialists at IBM India. He now works as a senior accessibility consultant at Deque Software. He has helped over 350 companies spread across various sectors in India drive accessibility initiatives. He also started an accessibility blog called 'DigitalA11y' to educate young professionals involved in digital accessibility, getting over 20,000 views every month. In addition to the blog, he runs an online community called helloa11y.com, a community of accessibility professionals from across India. Raghavendra believes that small changes can lead to large scale social change in India. "Are you providing cab services and bathrooms for your disabled employees? Do your lifts have braille labels? These are not big changes, but unfortunately, most workplaces are yet to tap the potential of people with disabilities," he says.

The second Hyderabad recipient of the award, Dr. Puppala, is a deputy transport commissioner in the state transport department. He recognized that many Indians who were deaf or hard-of-hearing felt dejected when filling out the section of the driving license test, which asked about their hearing ability. This led to many people not getting licenses or driving illegally. To address this, he trained over 40 people on how they could empower themselves to get a license, and all of them passed the test. His training included focusing on the rear and side-view mirrors instead of depending on traffic sound. He also helped trainees buy blind spot mirrors to view what is not visible via the traditional mirrors. His initiative has helped many locals with hearing disabilities lead a more independent life and is being replicated across the country. [Source: Kakoli Mukherjee New Indian Express]

ADDITIONAL INFORMATION:

[Two Hyderabad residents, working towards building a more accessible world, win design awards](https://www.newindianexpress.com/cities/hyderabad/2020/sep/30/two-hyderabadis-working-towards-building-a-more-accessible-world-windesign-awards-2203635.amp)
<https://www.newindianexpress.com/cities/hyderabad/2020/sep/30/two-hyderabadis-working-towards-building-a-more-accessible-world-windesign-awards-2203635.amp>

BLUETOOTH CONTROLLED HEARING AID ENTERS NEXT PHASE OF PRODUCTION

October 27, 2020 – Energous Corporation, the creators of WattUp, a wireless charging device, has announced FCC approval for a new hearing device. Energous Corporation collaborated with

NewSound, a hearing instrument company, to create the WattUp-enabled Primo W next-generation hearing aid. The device utilizes Energous' radio frequency-based wireless charging technology and New Sound's hearing design to offer what they consider an improved and revolutionary hearing aid. President and CEO of Energous Corporation, Stephen R. Rizzone, said, "The Primo W hearing aid represents a new level of technical advancement offering full Bluetooth control in conjunction with Dialog BLE and further validates the continued progress of the Energous wireless charging 2.0 technology, which offers substantial improvements over 1st generation, coil-based charging technologies in terms of freedom of movement, communications, and control." The NewSound Primo W hearing aid has numerous features in its latest release. Some of these features include:

- Battery recharging via WattUp from Energous Corporation
- SOUNDWEAR App control for a self-hearing check, program management, and battery monitoring.
- Flexible drop-to-charge design

[Source: BusinessWire]

ADDITIONAL INFORMATION:

[Energous Partner NewSound Receives FCC Approval for WattUp®-enabled Hearing Aid](https://www.businesswire.com/news/home/20201027005463/en/Energous-Partner-NewSound-Receives-FCC-Approval-for-WattUp%C2%AE-enabled-Hearing-Aid)

<https://www.businesswire.com/news/home/20201027005463/en/Energous-Partner-NewSound-Receives-FCC-Approval-for-WattUp%C2%AE-enabled-Hearing-Aid>

ACCESSIBLE VOTING DEBATES ARISE AS THE ELECTION NEARS

October 26, 2020 – Disability advocates are working to ensure that voting is accessible for people with disabilities. Recently, in Bexar County, people with hearing disabilities, including the Deaf community that rely on American Sign Language (ASL) to communicate, have noted that voting independently is limited to two locations with ASL interpreter assistance. Even though the county has 48 early voting locations and 302 planned voting locations for Election Day, only two locations have services for people who primarily use ASL and may know English as a second language. Local disability advocates such as the nonprofit No Barriers Communications have argued that iPads with virtual remote interpreting (VRI) services should be available at every voting location. By not having these accommodations, Bexar County may be at risk of violating the Americans with Disabilities Act (ADA), requiring equal access. [Source: Garrett Brnger via KSAT]

ADDITIONAL INFORMATION:

[Deaf voters in Bexar County only given access to interpreter assistance at two voting sites](https://www.ksat.com/news/local/2020/10/27/deaf-voters-in-bexar-county-only-given-access-to-interpreter-assistance-at-two-voting-sites/)

<https://www.ksat.com/news/local/2020/10/27/deaf-voters-in-bexar-county-only-given-access-to-interpreter-assistance-at-two-voting-sites/>

THEIA ROBOT GUIDE FOR PEOPLE WITH VISION DISABILITIES

October 26, 2020 – People with visual disabilities often use aids, such as service dogs, to navigate spaces around them. Sometimes, though, service dogs are not an affordable option. Anthony Camu, a Loughborough University student, developed a piece of assistive technology to address the access gap to traditional assistive tools. This technology is a robot prototype named Theia. The robot, Theia, is a handheld device that provides the user with instructions on traveling to their destination. The user’s destination can be input through voice commands or manual entry. The mechanics behind Theia rely on a “control moment gyroscope” to process real-time data (such as traffic). The prototype is not yet ready for widespread distribution as Camu is still addressing glitches such as excessive vibrations and busted motors. [Source: ATB]

ADDITIONAL INFORMATION:

[Care home technology increases social interaction](#)

<https://assistivetechblog.com/2020/10/prototype-theia-is-a-robotic-guide-dog-that-helps-blind-people-navigate.html>

CARLETON UNIVERSITY DEPLOYS CONTACTLESS ELEVATOR ACCESS

October 19, 2020 – Carleton University (Canada) recently deployed a contactless app to control an elevator at one of the oldest buildings on campus, Paterson Hall. The app is a significant contribution to Carleton’s vision of accessible design and a more inclusive world. Not only does it offer a solution for students like Hollis Pierce, who has muscular dystrophy and was earlier unable to reach the elevator buttons, but it also enables a safe, sanitary way of moving around the building during COVID. The project began in early 2018 when local accessibility tech company ProtoDev Canada was contracted for a solution. In December 2019, the company piloted the “Contactless Access module,” a small 10-inch plug and play piece of hardware that can be integrated with the elevator’s buttons or the automatic door operator. The app runs without WiFi to avoid nefarious attacks. When users approach an elevator, the app shows them “available buttons” such as up or down, and they can then select their floor of choice. “This collaborative, interdisciplinary effort is a good example of Carleton’s work on accessibility,” said Professor Adrian Chan, who chairs Carleton’s READ (Research, Education, Accessibility and Design) Initiative advisory board. The university plans to deploy five new Contactless Access elevators across campus, and other customers such as the Toronto Pearson Airport are installing their pilots. [Source: Joseph Mathieu via Carleton Newsroom]

ADDITIONAL INFORMATION:

[Carleton Collaboration Creates Automated Access to Elevators](#)

<https://newsroom.carleton.ca/story/automated-access-elevators/>

WEARABLE ASSISTIVE TECHNOLOGY - CHICAGO WOMAN RECEIVES AN ORCAM MYEYE

October 12, 2020 – Kalari Girtley, a Chicago woman with vision loss, was selected to receive a wearable assistive vision device while on a trip to meet world-famous soccer player Lionel Messi. Girtley flew to Spain to meet Messi, where the two appeared in a commercial for the device, called an Orcam MyEye. The device is about the size of a lipstick tube and is mounted on the side of one’s eyeglasses. It can read text and identify colors as well as products. Girtley, who lost her sight when she was six years old, was selected because of her personal story with sports. She has found assistive technology life-changing. She can now read to her little girl, organize her clothing, read a menu, and more. The Orcam MyEye costs \$4,200. Given its expense, the goal is to make assistive technologies like these, covered by insurance. [Source: Natalie Bomke via Fox 32 Chicago]

ADDITIONAL INFORMATION:

[Life changing: New technology helps the visually impaired](#)

<https://www.fox32chicago.com/news/life-changing-new-technology-helps-the-visually-impaired>

MICROSOFT TACKLES LACK OF DATA IN ACCESSIBLE AI

October 12, 2020 – Microsoft is working with several nonprofit partners to make AI-based tools more reflective of the everyday realities of people with limited mobility or vision. The first is a collaboration with Team Gleason, an organization formed to improve awareness around amyotrophic lateral sclerosis or ALS. “Computer vision and machine learning don’t represent the use cases and looks of people with ALS and other conditions,” said Team Gleason’s Blair Casey. Microsoft is launching a joint effort with Gleason called Project Insight to collect facial imagery of volunteers with ALS. In time, this facial data will be integrated with Microsoft’s existing services and released as an open-access dataset so others can use it to improve their algorithms. They aim to have a release in late 2021.

Another effort includes a collaboration with the City University of London to expand the “Object Recognition for Blind Image Training” project. The University is assembling a dataset for identifying everyday objects, like a can of pop, or a keyring, using a smartphone camera by sourcing data entirely from users who are blind. Meaning the algorithm will learn from the start to work with the kind of data it will be given later.

The third effort is an expansion of [VizWiz](#), a tool that uses AI and crowdsourcing to help image captioning. Microsoft worked with the app’s creator, Danna Gurari, to improve the app’s existing database of tens of thousands of images with associated questions and captions. They are also working to alert a user when their image is too dark or blurry to analyze or submit. [Source: Devin Coldewey via Tech Crunch]

ADDITIONAL INFORMATION:

[Microsoft and partners aim to shrink the 'data desert' limiting accessible AI](https://techcrunch.com/2020/10/12/microsoft-and-partners-aim-to-shrink-the-data-desert-limiting-accessible-ai/)

<https://techcrunch.com/2020/10/12/microsoft-and-partners-aim-to-shrink-the-data-desert-limiting-accessible-ai/amp/>

100 TABLETS DONATED TO SPECIAL EDUCATION STUDENTS IN WEST VIRGINIA SCHOOLS

October 12, 2020 – The COVID crisis has exacerbated the need for accessible remote learning. Independence University, an accredited online university, donated 100 Windows tablets to help the Special Education department of Mercer County Schools in West Virginia. The tablets will be distributed to students from pre-kindergarten through 12th grade within 26 different schools and will be used by more than 1,700 special education students within the school district. “During our time of crisis with the COVID-19 pandemic, this is a much-needed relief for assisting the teachers and families with assistive technology usage,” says Lynn Bayle, Director of Special Education for Mercer County Schools. [Source: Independence University via GlobeNewsWire]

ADDITIONAL INFORMATION:

[Tablets Donated to Mercer County Schools by Utah-based Independence University](https://www.globenewswire.com/news-release/2020/10/12/2106960/0/en/Tablets-Donated-to-Mercer-County-Schools-by-Utah-based-Independence-University.html#.X4XHhoXhmEQ.twitter)

<https://www.globenewswire.com/news-release/2020/10/12/2106960/0/en/Tablets-Donated-to-Mercer-County-Schools-by-Utah-based-Independence-University.html#.X4XHhoXhmEQ.twitter>

A REVIEW OF THE ORBITOUCH KEYLESS KEYBOARD AND MOUSE

October 12, 2020 – Launched in 2003, the OrbiTouch is a keyboard and mouse in one. It is designed for people who can't use a standard keyboard or simply want a different kind of experience. It was conceived by a doctoral student who started to experience carpal tunnel while writing papers. He spent fifteen years developing the OrbiTouch and found that it could assist many people with various upper body limitations. To use the keyboard, the user puts both hands on the two joysticks and moves them around. One D-pad points to groups of letters, numbers, and special characters, and the other chooses a color from a special OrbiTouch rainbow. For example, pink includes parentheses and the colon, while black is for the modifiers like Tab, Alt, Ctrl, Shift. These special characters are not shown on the hieroglyphs slider, so the user will need the guide until they memorize the placement of everything around the circle. According to the Hackday author who reviewed the keyboard, this keyboard rates highly with those on the spectrum because of the rainbow color scheme used to arrange inputs. Is it assistive technology? The author says, “if typing hurts, but you still need to do it, this could be your saving grace.” [Source: Kristina Panos via Hackaday]

ADDITIONAL INFORMATION:

[Inputs Of Interest: The OrbiTouch Keyless Keyboard And Mouse](https://hackaday.com/2020/10/12/inputs-of-interest-the-orbitouch-keyless-keyboard-and-mouse/)

<https://hackaday.com/2020/10/12/inputs-of-interest-the-orbitouch-keyless-keyboard-and-mouse/>

SINGAPORE BASED SMART HOME ECOSYSTEM FOR THOSE WITH DISABILITIES

October 11, 2020 – In Singapore, SG Enable, an agency dedicated to people with disabilities, has partnered with Google to run pilot trials of guiding users through setting up a smart home. Isabelle Lim, 26, and Ooi Lin Kah, 62, have used this effort to ‘go digital’ and lead more independent lives. Lim, a full-time photographer, has hearing loss due to a rare genetic disorder. She uses a smart doorbell and lighting system to identify when she has visitors. She has found this especially useful for deliveries or when family and friends come to visit.

Ooi uses the Tobii eye tracker. The former engineer has amyotrophic lateral sclerosis (ALS), resulting in no voluntary movements from the neck down. A senior speech therapist introduced the device to Ooi. It took Ooi 30 minutes to learn how to use the device and, within an hour, was able to type 200 words. The technology works by creating a pattern of near-infrared light on Ooi’s eyes. The eye tracker’s cameras pick up the reflected images, and the device determines where Ooi is looking. When paired with communicator software, Ooi works as a brain-computer interface to communicate thoughts by “typing” with eye movements, and the text output is audible. Ooi said the technology has been instrumental in helping him out of isolation during the pandemic.

In addition to their partnership with Google, SG Enable runs many local initiatives. At the “Tech Able” Enabling Village, users can test a range of devices to see which ones meet their needs. They may also borrow the devices to test them in a home, office, or school environment. Since its opening in 2015, Tech Able has supported more than 1,300 people with assistive technology needs. Overall, the smart home project is an excellent example of universal design. Technology providers have increasingly been making their mainstream products accessible to people with disabilities, benefiting the entire community. [Source: MalayMail]

ADDITIONAL INFORMATION:

[Smart tech that breaks down Singapore barriers for people with disabilities](https://www.malaymail.com/amp/news/singapore/2020/10/11/smart-tech-that-breaks-down-singapore-barriers-for-people-with-disabilities/1911580)

<https://www.malaymail.com/amp/news/singapore/2020/10/11/smart-tech-that-breaks-down-singapore-barriers-for-people-with-disabilities/1911580>

ACCESSIBLE CAMPUS MAP, NORTHERN ARIZONA UNIVERSITY

October 7, 2020 – Northern Arizona University is undertaking a project to help individuals with physical and vision disabilities more easily navigate its campus. Typically, universities provide an online campus accessibility map to assist with getting around. However, this type of map isn't highly precise about locations and does not provide directions for getting to a destination. Northern Arizona University is taking a new approach. "The effort uses state-of-the-art ground-based LiDAR to create a map of campus which is accurate to 3 cm," says Jamie Axelrod, director of disability resources at the university. "That means it can accurately portray ground slope and slope changes, which are important for informing people about accessible routes of travel." The University is working with Quantum Spatial, a geospatial data firm, on the project. They plan to develop high-resolution maps programmed to work with assistive technology devices such as screen readers. This data will help people get to their exact destination instead of the general vicinity of their destination, which Axelrod believes will be revolutionary for their students with vision disabilities. In the next stage of the project, the University will integrate audio assistive technologies. [Source: Melissa Ezarik via University Business]

ADDITIONAL INFORMATION:

[Making a more accessible, accurate campus accessibility map](https://universitybusiness.com/making-a-more-accessible-accurate-campus-accessibility-map/)

<https://universitybusiness.com/making-a-more-accessible-accurate-campus-accessibility-map/>

CLOUD-BASED ASSISTIVE TECHNOLOGY STARTUP LAUNCHES IN IRELAND

October 5, 2020 – Peer is a cloud-based assistive technology startup in Ireland, designed to support people with Dyslexia, ADHD, or other learning disabilities that impact reading, spelling, and grammar. It provides both text-to-speech and speech-to-text capabilities to create documents in a browser-based workspace available on any device. Peer was developed by founder Graham Brocklebank's first-hand experience as a person with severe Dyslexia. When Graham studied Computer Science as a mature student, he "noticed almost right away that the assistive technologies available to me as a person with Dyslexia were the same AT given to me over ten years previously, with almost no innovation or improvements to the user experience, making them very difficult to use." To remove these barriers, Peer has spent two years researching user pain points in secondary schools, third level education, and the workplace. Their current prototype has been developed based on this research's insights and is available for a 7-day free trial. Peer has secured early-stage funding and won awards from Ireland's Best Young Entrepreneur (IBYE) in Fingal and the Responsible Innovation Summit (RSI) for social impact. It will soon begin its seed

round of funding, and through which Graham hopes to scale their product to the rest of the EU.
[Source: Irish Tech News]

ADDITIONAL INFORMATION:

[Cloud-based assistive technology that aids people with Dyslexia, ADHD launches](#)

UPCOMING EVENTS

VIRTUAL CONFERENCE COVERS A MYRIAD OF DISABILITY-RELATED TOPICS

The American Association for Access, Equity, and Diversity (AAAED) hosts its 46th national conference completely virtually this year. The theme of this year's annual conference is "Turning Obstacles into Opportunities." They convene bi-monthly virtual sessions until December 16th.

Upcoming sessions include:

- November 9 Virtual Session - "Faculty Recruiting for Excellence and Diversity"
- November 18 Virtual Session - "Behind the Scenes: Best Practices and Lessons Learned for Managing Your Organization During an Agency Review"
- December 2 Virtual Session - "Impacting Perceptions: Evolving Views of Social Identities to Promote Inclusion"
- December 10 Virtual Session - "What EEOC and OFCCP Trends Tell us About Compliance Readiness"
- December 16 Virtual Session - "Strategic Planning for EO/AA Complaint Investigations"

ADDITIONAL INFORMATION:

[Conference Agenda](#)

https://www.aaaed.org/aaaed/Conference_Agenda1.asp

[Conference Registration](#)

<https://www.aaaed.org/aaaed/Registration.asp>

ASSISTIVE TECHNOLOGY CONFERENCE IN GUAM

The 26th Annual Guam System for Assistive Technology Conference will be hosted virtually this year on November 6th, and November 13th from 10 am to 12:00 noon. The annual conference is hosted by the University of Guam and co-sponsored by the Guam Legal Services Corp. Disability Law Center and the Guam Developmental Disabilities Council. This year's theme is "Creating Opportunities in a Changing World." The first keynote presentation will be given by Therese Willkomm, the Director of Assistive Technology in the Institute on Disability at the University of New Hampshire. The title of their presentation is "Creating Assistive Technology Devices at-home

during COVID-19.” The second keynote presentation will be given by Neil Rochelle, Educational Administrator in the Division of Special Education at the Guam Department of Education. Their presentation is entitled “Four decades of exploration in assistive technology: From toys to term papers.” The conference is free to attend, but interested persons should register at <http://bit.ly/gsatvirtualconference>. The conference will also provide American Sign Language (ASL) and closed captioning to ensure accessibility for guests. [Source: Pacific Daily News]

ADDITIONAL INFORMATION:

[Assistive technology conference to be held online Nov. 6 and 13](https://www.guampdn.com/story/news/local/2020/10/31/assistive-technology-conference-support-disabilities/6066734002/)

<https://www.guampdn.com/story/news/local/2020/10/31/assistive-technology-conference-support-disabilities/6066734002/>

ACCESSING HIGHER GROUND CONFERENCE HIGHLIGHTS EQUITY AND INCLUSION

If you missed Haben Girma, the keynote speaker at Georgia Tech’s Diversity Symposium, there is still a chance to hear her speak! This year, the Accessing Higher Ground: Accessible Media, Web, and Technology Conference will also have Haben Girma as a keynote speaker. The conference is scheduled to take place virtually from November 9, 2020 – November 19, 2020. During the pre-conference, there will be numerous panels covering a variety of topics from “Adobe InDesign Layouts to Produce to Accessible PDFs” to “Introduction to Mobile Assistive Technology and Accessibility Testing.” During the main conference, a series of events will cover a range of topics such as “Equity in the Classroom: Ensuring Open Educational Resources [OER] is Accessible to Everyone” to “Pivot to Online Accessibility and Accommodations.” For ATHEN & AHEAD members, the conference fees are \$288, while for non-members, the conference is \$360. Registration is open now! [Source: Accessing Higher Ground].

ADDITIONAL INFORMATION:

[Accessing Higher Ground](http://www.cvent.com/events/accessing-higher-ground-2020-virtual-conference/event-summary-4993aa597fc14cbe9ebe3f2ebf4d1e73.aspx)

<http://www.cvent.com/events/accessing-higher-ground-2020-virtual-conference/event-summary-4993aa597fc14cbe9ebe3f2ebf4d1e73.aspx>

GLOBAL CONFERENCE FOR VISION ACCESSIBILITY

The annual Sight Tech Global event will occur virtually this year from December 2-3. This year’s conference’s primary focus is the future impact of artificial intelligence (AI) technologies on the development of assistive technology and accessibility. Specifically, the conference will highlight the next generation of screen readers and the accessibility implications for people with blindness and other vision-related disabilities. Glen Gordon will be a speaker at this year’s conference. Glen

Gordon is the architect of Job Access with Speech (JAWS), an assistive technology that provides Windows PCs navigation with output in speech and Braille. In a press release statement, Gordon discussed the latest release of JAWS and its newest voice commands, streamlined access to image descriptions, and the ability of JAWS, Zoom Text, and Fusion to use natural language processing for verbal commands. The Sight Tech Global conference is free to attend, and registration is open now. [Source: Ned Desmond via Tech Crunch]

ADDITIONAL INFORMATION:

[JAWS architect Glen Gordon is joining Sight Tech Global, a virtual event Dec. 2-3](https://techcrunch.com/2020/09/16/jaws-architect-glen-gordon-is-joining-sight-tech-global-a-virtual-event-dec-2-3/)

<https://techcrunch.com/2020/09/16/jaws-architect-glen-gordon-is-joining-sight-tech-global-a-virtual-event-dec-2-3/>

TECHNOLOGY AND DISABILITY POLICY HIGHLIGHTS, OCTOBER 2020

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