



TECHNOLOGY AND DISABILITY POLICY HIGHLIGHTS – AUGUST 2020

Click the headings below to link directly to a particular section.

[Legislative Activities](#) [Regulatory Activities](#) [Wireless RERC Updates](#) [Other Items of Interest](#)



OVERVIEW

As August concluded, attention was paid to voters with disabilities' access to upcoming elections. Hawaii passed *Act 136*, expanding access to electronic ballots, which had previously only been available to military personnel. Similarly, a Virginia federal court released a consent decree regarding expanded accessibility options. The Decree requires that all counties and cities in Virginia have electronic absentee ballots that are compatible with screen-reader technology and other assistive technologies.

While August marks the annual Congressional recess, work continued at regulatory agencies. The Federal Communications Commission (FCC) released an *Order* [**CG Docket No. 03-123; CG Docket No. 10-51**] extending waivers to providers of relay services to address the increased demand for communications access during the COVID-19 pandemic. In another, COVID-19-related *Order* [**WC Docket No. 11-42**], the FCC granted waiver extensions for the Lifeline program until November 30, 2020. The FCC also released a *Notice of Inquiry* regarding the deployment of broadband services and the collection of broadband deployment data. This Notice requests feedback and comments on the *2020 Broadband Deployment Report* to guide their discussion for the upcoming 2021 Broadband Deployment Report.

In Wireless RERC news, we released a video of Pepper, a socially assistive robot designed to provide respite for caregivers of people with intellectual or developmental disabilities. Pepper reads stories, dances, and even does Tai Chi. [Watch Pepper in Action on the Wireless RERC YouTube Channel](#). The Wireless RERC also submitted comments to the FCC in response to their Public Notice *Consumer and Governmental Affairs Bureau Seeks Comment On Tentative Findings for the 2020 Twenty-First Century Communications and Video Accessibility Act Biennial Report* [**CG Docket No. 10-213**]. Overall, the comments indicated the industry's growth in the accessibility and affordability of advanced communications technologies, but also noted that access gaps remain, particularly regarding new communications technologies. Finally, data collection continues for the [2020 Survey of User Needs](#) and the [Survey on Access to COVID-19 Information](#).

This issue also includes news about on-device artificial intelligence, autonomous vehicles, assistive technologies, wearables, distance learning, and more.

LEGISLATIVE ACTIVITIES

HAWAII PASSES PROVISION FOR ELECTRONIC BALLOT OPTION FOR PEOPLE WITH DISABILITIES

August 3, 2020 — After Hawaii recently passed a provision, Act 136, voters with disabilities may now request an electronic ballot. Previously, only military personnel could receive an electronic ballot. The electronic ballot is delivered in HTML file format to ensure access via screen readers and other assistive technologies. The ballot can be returned via email, fax, or traditional mail, or dropped off at a deposit location. Voters with disabilities who elect to use an electronic ballot may also request one up to five days before the election due to not receiving the initial ballot or simply needing a new one. However, Hawaii voters with disabilities noted some concerns regards accessibility to these electronic ballots. Though counties in Hawaii are responsible for distributing these ballots as needed, there isn't currently a uniform process for doing so. As a result, many voters with disabilities do not know how to access the ballots, and there is low education on the voting system. The Hawaii Chapter of the National Federation of Blind continues to advocate for transparency and accountability to ensure every voter with a disability who needs a ballot can access one. [Source: Blaze Lovell via Honolulu Civil Beat]

ADDITIONAL INFORMATION:

[How Hawaii's New Voting System Could Help Disabled Voters](https://www.civilbeat.org/2020/08/how-hawaiis-new-voting-system-could-help-disabled-voters/)

<https://www.civilbeat.org/2020/08/how-hawaiis-new-voting-system-could-help-disabled-voters/>

REGULATORY ACTIVITIES

WAIVERS EXTENDED TO ENSURE COMMUNICATIONS ACCESS

August 26, 2020 – The Consumer and Governmental Affairs Bureau of the FCC published an Order [**CG Docket No. 03-123; CG Docket No. 10-51**] that extended waivers to providers of Telecommunications Relay Services and Speech-to-Speech Services for people with hearing and speech disabilities. It also addressed the structure and appropriate practices of the Video Relay Service program. The initial Orders implementing these waivers were released on March 16th and April 3. Subsequently, the Orders received modifications on May 14 and June 22. These Orders are collectively referred to as "COVID-19 Waiver Orders." The first Order related to Telecommunications Relay Services (TRS) allowed American Sign Language interpreters to work from home to maintain uninterrupted relay services during COVID-19. The FCC also waived the following provisions for the at-home VRS pilot program and permanent rules that require:

- A cap on the percentage of a VRS provider's conversation minutes that may be handled by at-home communications assistants (CAs).

- At-home CAs to have at least three years of experience as a call center CA (under the pilot program rules) or as an interpreter (under the permanent program rules).
- That virtual teaming be available to at-home CAs for any VRS call.
- That CA's home workstation be restricted solely to the CA.
- That the VRS provider (1) inspect and approve each at-home workstation before activating it for use by the CA, and (2) conduct random and unannounced inspections of at least five percent (5%) of activated at-home workstations. The waiver of the workstation inspection requirement is conditional on such inspections being made upon the expiration of the waiver period for all at-home workstations that remain in use.
- To equip at-home workstations with monitoring technology.
- That if multiple CAs simultaneously using a CA's home or other worksites, must be identified and reported as a call center (provided that such worksites comply with
 - all non-waived at-home rules).
- The VRS waiver stipulates that such access being restricted solely to the CA and other provider personnel (including other CAs) during their working hours.

This waiver, which includes the above provisions, has been extended until November 30th, 2020. The second Order about the structure and practices of the VRS Program waived specific restrictions regarding VRS providers hiring contractors not associated with an eligible VRS provider. It also allows VRS providers to continue contracting additional qualified American Sign Language (ASL) interpretation services to meet increased demand. This second VRS waiver will be extended until November 30, 2020. [Source: FCC]

ADDITIONAL INFORMATION:

[Extends Telecommunications Relay Services COVID-19 Waivers](https://www.fcc.gov/document/extends-telecommunications-relay-services-covid-19-waivers)

<https://www.fcc.gov/document/extends-telecommunications-relay-services-covid-19-waivers>

FCC REQUESTS COMMENTS FOR 2021 BROADBAND REPORT AND DEPLOYMENT EFFORTS

August 19, 2020 – The FCC published a *Notice of Inquiry* [**GN Docket No. 20-269**] regarding the deployment of broadband and advanced telecommunications capabilities in a reasonable and timely manner. Earlier this year, the Commission published the *2020 Broadband Deployment Report* that assessed whether internet and broadband providers are expanding their networks to ensure all Americans receive service, including underserved populations. The FCC is seeking comments on the following actions in this Notice of Inquiry:

- I. The Commission would like feedback and comments to guide their *2021 Broadband Deployment Report* based on the conclusions from the 2020 report, such as assertions that “the digital divide continues to narrow as more Americans than ever before have access to high-speed broadband,” but their work is not complete as “close to 6% of Americans lack

access to fixed terrestrial broadband capability of 25/3 Mbps.” The Commission would like comments on whether broadband deployment in Tribal lands still lags compared to non-Tribal lands.

- a. The Commission’s report also found that mobile and fixed broadband are not functional substitutes for “all uses and customer groups.” They would like comments on this finding and whether there have been any substantive changes since the report was released. If so, they would like feedback on how to adjust their assessment approach.
- II. The Commission would like comments on their proposed holistic framework for assessing progress in the deployment of broadband as outlined in the *2020 Broadband Deployment Report*. They also propose to maintain their methodologies and metrics.
- a. As it pertains to data sources and analysis, the Commission would like comments on whether to continue using the FCC’s Form 47 data to evaluate deployment.
 - b. They would also like comments on requirements for the process to receive verified data from state, local, and Tribal entities.
 - c. Finally, the Commission would like comments on the effects of their efforts to expand and improve broadband deployment as well as feedback on how to better expand access to spectrum.

The extensive *Notice of Inquiry* highlights several other areas of interest in which the Commission would like feedback. All comments are requested by September 18, 2020, with a reply comment by October 5, 2020. [Source: FCC]

ADDITIONAL INFORMATION:

[Sixteenth Broadband Deployment Report Notice of Inquiry](https://www.fcc.gov/document/sixteenth-broadband-deployment-report-notice-inquiry)

<https://www.fcc.gov/document/sixteenth-broadband-deployment-report-notice-inquiry>

NTIA REQUESTS FEEDBACK FROM INTERESTED STAKEHOLDERS ON LONG-STANDING SURVEY

August 18, 2020 — The National Telecommunications and Information Administration (NTIA) published a notice in the Federal Register [**Docket No. 2000813-0218**] requesting comments and recommendations for suggested changes to their Internet Use Survey. These recommendations can suggest new questions to expand on existing topics covered in the survey and/or deletions of irrelevant/unnecessary questions. Further, the NTIA would also like feedback on whether existing survey questions should receive any modifications.

This survey is one of the NTIA’s long-standing questionnaires and is distributed to approximately 50,000 homes across the United States. It supplements the periodically administered Current Population Survey (CPS) that gauges national labor force statistics and provides information on digital use. The survey assesses a range of topics about digital inclusion and other internet policy issues, including the adoption of different types of devices and internet access technology. It also

evaluates the challenges and barriers that prevent people from maximizing the internet as a resource. The notice requests comments on or before September 17, 2020. [Source: Federal Register]

ADDITIONAL INFORMATION:

[Establishing the Digital Opportunity Data Collection](#)

<https://docs.fcc.gov/public/attachments/FCC-20-94A1.pdf>

WAIVER EXTENDED FOR LIFELINE PROGRAM

August 17, 2020 — The Wireline Competition Bureau of the FCC published an Order [**WC Docket No. 11-42**] entitled the *Lifeline and Link-up Reform and Modernization*. The Order found “good cause” to extend several waivers related to the Lifeline program that were established in response to the COVID-19 pandemic. The first extension in the series of waivers pertains to relaxed Lifeline program rules governing recertification, re-verification, general enrollment, subscriber usage, income documentation, and documentation requirements for potential enrollees living on rural Tribal lands and in other places. The waiver that relaxes these rules will extend to November 30, 2020. Further, the Order directs the Universal Service Administrative Company (USAC), which is responsible for recertification and re-verification notices, to not de-enroll any Lifeline subscriber for “failure to successfully respond” nor open any new verification documentation requests until November 30, 2020. As to not overwhelm USAC after November 30, 2020, the Order grants the USAC flexibility in recertification and re-verification, which will allow them to begin these processes in batches. [Source: FCC]

ADDITIONAL INFORMATION:

[WCB Extends Lifeline Program Waivers Due to COVID-19](#)

<https://www.fcc.gov/document/wcb-extends-lifeline-program-waivers-due-covid-19>

FCC CHAIRMAN’S AAA NOMINATIONS FOCUS ON PEOPLE ADVANCING ACCESSIBILITY

August 2020 — The Commission opened the nomination portal for the Ninth Chairman’s Awards for Advancement in Accessibility (Chairman’s AAA). In honor of the 30th anniversary of the Americans with Disability Act (ADA) and the 10th anniversary of the Twenty-First Century Communications and Video Accessibility Act (CVAA), the FCC requested nominations for individuals that have made significant contributions to the “rapid, efficient nationwide communication service.” In previous years, the Chairman's AAA focused on emerging and innovative technologies, which naturally resulted in honoring companies. In contrast, this year's nominees were individuals working in the private or public sector, devoted to increasing accessibility to digital communications. The award winners will be honored at a ceremony in October 2020. [Source: FCC]

ADDITIONAL INFORMATION:

[Recognizing Innovators in the Field of Accessibility and Technology](https://docs.fcc.gov/public/attachments/DOC-365897A1.pdf)
<https://docs.fcc.gov/public/attachments/DOC-365897A1.pdf>

WIRELESS RERC UPDATES

MEET PEPPER, A SOCIALLY ASSISTIVE ROBOT TO PROVIDE RESPITE FOR CAREGIVERS OF PEOPLE WITH INTELLECTUAL OR DEVELOPMENTAL DISABILITIES

August 2020 – In August, the Wireless RERC released a video of Pepper in action on the YouTube Channel. Pepper reads stories, dances, and even does Tai Chi. Wireless RERC researcher, John Bricout, Ph.D., who is the director of the School of Social Work at the University of Minnesota, Twin Cities (UMN), Dr. Julienne A. Greer, and collaborators at the



University of Texas at Arlington (UTA), Emotional Robotics Living Lab, are investigating the socially assistive capabilities of "Pepper," a versatile 4-foot tall humanoid robot. Pepper can provide social, physical, and emotional support for older adults and people with disabilities. Bricout notes, "the broad aim of our work is to extend the capabilities and quality of life of older adults and people with disabilities, leveraged by socially assistive robotics as partners in learning and action."

ADDITIONAL INFORMATION:

[Watch Pepper in Action on the Wireless RERC YouTube Channel](https://youtu.be/zGnFO9EBcZk)
<https://youtu.be/zGnFO9EBcZk>

WIRELESS RERC ON THE RECORD: ACCESSIBILITY GAINS AND GAPS FOUND IN THE BIENNIAL ANALYSIS OF MOBILE PHONE ACCESSIBILITY

August 4, 2020 - The Wireless RERC submitted comments to the FCC on August 4th in response to their Public Notice *Consumer and Governmental Affairs Bureau Seeks Comment On Tentative Findings for the 2020 Twenty-First Century Communications and Video Accessibility Act Biennial Report* [CG Docket No. 10-213]. The FCC's Tentative Findings Report cited the Wireless RERC nearly fifteen times based on our initial comments in April, which discussed the preliminary findings of the 2019/2020 Mobile Phone Accessibility review. In our latest comments, we provided the FCC with a complete analysis of mobile phone models available up to February 2020 from the top four wireless carriers, one prepaid carrier, and five Lifeline Carriers. Our review highlighted several

interesting findings, which include non-smartphone manufacturers integrating smartphone features into their core models and a significant increase in the presence of full access screen readers for all mobile phones.

Additionally, the comments were informed by our User Experiences and Expectations research, including focus group results and the results of our cornerstone survey on wireless technology use by people with disabilities, the Survey of User Needs (SUN). Overall, the comments indicated the industry's growth in the accessibility and affordability of advanced communications technologies, as evidenced by the increasing presence and richness of new accessibility features on mobile devices, which can also result in greater usability of these devices. The data indicate that consumers with disabilities seeking to purchase smartphones have more device options with a greater variety of accessibility features. Particularly, accessibility for people who use the voice output features and the alternative login as there was a significant increase in the presence of TTS, full access screen readers, and biometric login. Furthermore, SUN analysis found that a majority of respondents with disabilities indicated that both basic cell phones and smartphones were easy to use. However, some access gaps remain, particularly regarding new communications technologies. Based on the data presented in the comments, the Wireless RERC offered the following recommendations:

- As new features are developed, mobile phone manufacturers are encouraged to continue to incorporate users with disabilities into all stages of the design process so that accessibility, and consequential usability, is intentional within digital designs instead of a fortuitous byproduct of innovative technology.
- Increasing the percentage of phones with excellent M and T ratings (M4/T4) would better ensure a quality experience with voice calls for people who use hearing aids and cochlear implants.
- Given the rate of people with disabilities reporting more than one disability, and the disparity between the availability of accessibility features based on disability type, increasing the percentage of more universally accessible devices would be good for manufacturers and end-users alike.
- Increasing the percentage of non-smartphones that are WEA-capable would better ensure access to emergency alerts for users with disabilities that prefer non-smartphones.
- For continuity of the accessibility experience through app and OS updates, more development efforts should enable a way to ensure that systems updates do not reset to the default status. If this could be overcome, it would not only impact accessibility, but also (1) the security of the device for people with disabilities, and (b) the optimal operation of the device or app, as it would have the latest fixes and features.
- Voice input devices such as digital assistants and smart speakers may be more capable than users believe is the case, suggesting the need for more informed or more expanded

help/guidance functions. This speaks to the need for the design process to expand beyond minimal accessibility features to incorporate outcome-based design, such as increased usability.

- To address barriers experienced by customers with disabilities during point of sale transactions, we recommend (1) disability awareness/etiquette and information about accessibility features should be a standard part of sales associate training, and (2) providing a stable method for customers with disabilities to obtain in-store support (e.g., video remote interpreting services).

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)

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. 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 by calling 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. The goal of this research is 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, please email [Salimah LaForce](mailto:Salimah.LaForce@gatech.edu) to schedule a time or call her at 404-839-8741.

This research is being funded by Georgia Tech's Executive Vice President of Research COVID-19 Rapid Response Seed Grants.

OTHER ITEMS OF INTEREST

VIRGINIA COURT GRANTS ELECTRONIC BALLOT OPTION FOR PEOPLE WITH DISABILITIES

August 28, 2020 – A Virginia federal court released a consent decree regarding expanded accessible options for people with disabilities to vote in this year's Presidential election. The Decree requires that all counties and cities in Virginia have a tool that will deliver electronic absentee ballots for voters with disabilities to mark via screen-reader technology. In their comments, Judge Norman K. Moon noted objections from the GOP who expressed concerns about voter fraud, but maintained that "every indication before the Court is that the June primary was conducted without the witness signature requirement and without any corresponding increase in voter confusion or election fraud." Information, specific guidance, and instructions for the 'The Ballot Marking Tool' is in the process of being disseminated by the Voting Registrar. [Source: CBS 19 News; The Associated Press via WFXR]

ADDITIONAL INFORMATION:

[Federal court approves AG Herring's agreement to promote safe absentee voting](#)

<https://www.wfxrtv.com/news/your-local-election-hq/federal-court-approves-ag-herrings-agreement-to-promote-safe-absentee-voting/>

[Court approves Decree to help eligible disabled voters cast ballots](https://www.cbs19news.com/story/42561697/court-approves-decree-to-help-eligible-disabled-voters-cast-ballots)

<https://www.cbs19news.com/story/42561697/court-approves-decree-to-help-eligible-disabled-voters-cast-ballots>

NEW APP HELPS WITH COMMUNICATION BARRIERS CAUSED BY PANDEMIC

August 24, 2020 — The COVID-19 pandemic has made mask-wearing a government mandate in many places across the United States. But this policy has caused some challenges for people with hearing disabilities who may have previously relied on reading lips to communicate. To address this barrier, Rochester Institute of Technology (RIT)'s Center on Access Technology Lab created the TigerChat app located in the RIT main mobile app. The TigerChat app provides a shareable code for the user to give the person they seek to start a conversation with. Once the chat has begun, the user can either start texting or speak directly into the chatbox, and it will automatically turn voice into captions directly on the screen. The TigerChat app is specifically for members of the RIT community with a grant from the Microsoft Artificial Intelligence for Accessibility (MAI4A) program and technical support from CloudCheckr. [Source: RIT]

ADDITIONAL INFORMATION:

[RIT launches TigerChat communication app](https://www.rit.edu/news/rit-launches-tigerchat-communication-app)

<https://www.rit.edu/news/rit-launches-tigerchat-communication-app>

SELF-DRIVING BUS AIMS TO INCREASE ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

August 21, 2020 — Several Detroit-based companies collaborated with Michigan's Office of Future Mobility and Electrification PlanetM to increase accessibility to transportation for underserved populations and the elderly. The result was a self-driving, accessible, paratransit shuttle for medical appointment transport. The partnering organizations that developed the shuttle, Navya, NextEnergy, Bestsmile, Flagstar Bank, IXR Mobility, and AARP, participated in this project to increase trust for autonomous mobility, believing that autonomous vehicles are an opportunity to bridge the mobility divide for marginalized populations. The company, Navya, was charged with developing the autonomous technology for the shuttle, and they were able to complete this operation with a 2019 PlanetM Mobility Grant. Beginning in August 2020, the Navy Autonom Shuttle will travel down its programmed 1.31-mile route with an on-board safety operator (who is contracted through IXR Mobility). This free service for the two pilot communities, Brush Park Senior Center and Brewster Homes, will run Monday through Friday from 9 am to 5 pm (EST). The pilot program will conclude in mid-October 2020. As of now, the shuttle service is not open to the public. [Source: Tim Lawlis via Detroit CBS Local News]

ADDITIONAL INFORMATION:

[Self-Driving Shuttle Service Launched To Transport Senior Citizens And Underserved To Detroit Hospital](https://detroit.cbslocal.com/2020/08/21/self-driving-shuttle-service-launched-to-transport-senior-citizens-and-underserved-to-detroit-hospital/)

<https://detroit.cbslocal.com/2020/08/21/self-driving-shuttle-service-launched-to-transport-senior-citizens-and-underserved-to-detroit-hospital/>

ASSISTIVE TECHNOLOGY DEVELOPED IN THE UK FOR PEOPLE WITH VISION DISABILITIES

August 18, 2020 — The Clover 10 Handheld Video Magnifier, developed by MaxiAids, is a video magnifier for people with vision loss. The Clover 10 Handheld Video Magnifier was created to increase accessibility to small print for people with low vision. Clover 10 has some notable features, including snapshot freeze, which allows the user to take and save pictures for later review. It also has ergonomic and tactile control buttons located under the display, which allows the user to access various functions without moving the device. [Source: Laura Medical via Easterseals Crossroads]

ADDITIONAL INFORMATION:

[Clover 10 Handheld Video Magnifier](https://www.eastersealstech.com/2020/08/18/clover-10-handheld-video-magnifier/)

<https://www.eastersealstech.com/2020/08/18/clover-10-handheld-video-magnifier/>

NEW HEARING AID TECHNOLOGY GOES AGAINST THE GRAIN

August 18, 2020 — ReSound ONE, a new hearing aid technology, was created with the notion that everyone's hearing is unique. Creators rejected the standardized approach to creating hearing aids based on the "average ear," and instead developed a technology based on individualized hearing assessments. The ReSound One inserts an additional microphone inside the ear canal, which allows the ear's natural structure to enhance sound quality by utilizing the outer ear (pinna) as an acoustic antenna. This design reportedly helps the brain to identify sounds and "tune in" to specific voices in noisy environments. According to the press release, the Resound ONE is considered the world's first full-featured hearing aid that includes user-activated Ultra Focus settings, which improve speech recognition. [Source: MarketScreener]

ADDITIONAL INFORMATION:

[ReSound ONE: an entirely new class of hearing aids that offers a truly individualized hearing experience and the best sound quality for every user](https://www.marketscreener.com/news/ReSound-ONE-an-entirely-new-class-of-hearing-aids-that-offers-a-truly-individualized-hearing-experience-and-the-best-sound-quality-for-every-user)

https://www.marketscreener.com/news/ReSound-ONE-an-entirely-new-class-of-hearing-aids-that-offers-a-truly-individualized-hearing-experi--31135645/?utm_medium=RSS&utm_content=20200818

DEVELOPMENT OF SOFTWARE THAT AUTOMATES MULTISENSORY IMAGES FOR ACCESSIBILITY

August 18, 2020 — UNAR Labs, an affiliated lab with the University of Maine, recently received a grant from the National Institute of Health's (NIH) Small Business Innovation Research Phase I program in the amount of \$300,000. These funds were granted to support the continued development of an innovative mobile software platform, called Midlina, that would automate digital image translation. The images are converted into accessible multisensory images that users can touch, feel, and hear using haptics, vibration feedback, and audio features. The concept for this project was born from the reality that more than 60% of digital images are completely inaccessible to people with vision disabilities. This virtual content can include images in PowerPoints, online textbooks, Twitter and Instagram, Apple maps, and more. For those who are interested in purchasing existing software, the cost could be upwards of \$15,000. Further, the process of translating these images is complex. The current translation process for images into accessible information can take anywhere from two weeks to two months. UNAR labs proposes to shorten the time and complexity with their software solution to, in part, lower the barrier for educational institutions in making accessible coursework and materials. "We're working in a field that we both have had a lot of experience in, personal and professional. This company is built out of a lot of Hari's dissertation work and my experience as a blind scientist who has dealt with trying to find solutions to this for the last 20 years and understands what works, what doesn't, and the real challenges." [Source: MaineBiz]

ADDITIONAL INFORMATION:

[UMaine assistive technology spinout UNAR Labs receives NIH award](https://www.mainebiz.biz/article/umaine-assistive-technology-spinout-unar-labs-receives-nih-award)

<https://www.mainebiz.biz/article/umaine-assistive-technology-spinout-unar-labs-receives-nih-award>

WEARABLE DEVICE PROMOTES INCLUSIVE PRODUCT DESIGN

August 17, 2020 — Graduate student, Dorothy Clasen, developed a wearable device for people with mobility impairments that enables the hands-free operation of digital devices and other activities that may require body movements such as a game of tennis or ping-pong. The wearable device called [In]Brace is a mouthpiece similar to a retainer that has a small sliding mechanism that can be moved with the user's tongue. The sensors detect movement, and through a wifi-connected device attached behind the ear, information can be translated to perform acts. In practice, this device has promising applications, particularly as it pertains to inclusion and universal product design. This device could allow users with mobility disabilities to connect to and interact with digital environments— [Source: Venkat via Assistive Technology Blog; DesignBoom].

ADDITIONAL INFORMATION:

[\[in\]brace is a wearable device that uses tongue movement to interact with computers](#)

<https://assistivetechologyblog.com/2020/08/in-brace-mouth-wearable.html/amp>

PROVIDING ACCESSIBLE DISTANCE LEARNING TECHNOLOGY

August 17, 2020 — The state of internet connectivity for the average American was poor even before the pandemic rattled the country. Statistics indicate that in 2019 approximately 162 million Americans did not have fast broadband connectivity to support online coursework and work-from-home tasks. The pandemic has highlighted how pervasive poor connectivity is across the country. In response to the virtual platform that K-12 schools are assuming for Fall 2020 and the reality that internet access remains elusive for many, two Atlanta-based companies have jumped into action. Stratix Corporation and Bark Technologies have made distance learning accessible and safer for students. Stratix created the SmartMobile Education Technology (SET) program that provides students with the necessary educational technology such as smart devices and laptops. Stratix partnered with Bark Technologies, who will provide enhanced security for these devices to ensure students' internet safety. These two companies launched their program in Detroit, and 22,000 K-12 students from low-income families received a Chromebook with the necessary software as well as G Suite for Education and carrier-activated hotspots. These laptops also come equipped with AI monitoring and filtering systems for online safety. Though Detroit is the first public school system to partner with these two companies, the CEOs of Stratix and Bark hope that other public school districts will follow suit. [Source: Maine Ehlinger via Hypepotamus]

ADDITIONAL INFORMATION:

[Two Atlanta Companies Partner To Make E-Learning Accessible and Safer For Detroit Students](https://hypepotamus.com/news/two-atlanta-companies-partner-to-make-e-learning-accessible-and-safer-for-detroit-students/)
<https://hypepotamus.com/news/two-atlanta-companies-partner-to-make-e-learning-accessible-and-safer-for-detroit-students/>

UNIVERSITY OF DUNDEE DEVELOPS M.SC PROGRAM IN EDUCATIONAL ASSISTIVE TECHNOLOGY

August 13, 2020 — As we become increasingly reliant on digital platforms for learning, the need arises for educational assistive technology and professionals who are well-versed in their uses. In response to the changing climate, the University of Dundee in Scotland has created a Master of Science in Educational Assistive Technology program. The program will be part of their School of Science and Engineering and aims to ensure that students with learning disabilities can fully engage in higher learning via the appropriate tools. However, this feat is not possible without the necessary professionals in place. Graduating professionals will be able to support students who require assistive technology in the university space. The program requires that interested applicants have the following criteria: Bachelor's degree in computing, education, or a therapeutic subject and Protecting Vulnerable Groups (PVG) member status or equivalent. [Source: SNS Web via The Statesman]

ADDITIONAL INFORMATION:

[University of Dundee launches M Sc in Educational Assistive Technology for disabled learners
https://www.thestatesman.com/education/university-dundee-launches-m-sc-educational-assistive-technology-disabled-learners-1502916687.html](https://www.thestatesman.com/education/university-dundee-launches-m-sc-educational-assistive-technology-disabled-learners-1502916687.html)

INNOVATIVE ARTIFICIAL INTELLIGENCE CAN REDUCE ACCESSIBILITY BARRIERS

August 11, 2020 - On-device artificial intelligence (AI) quickly became popular as smartphone technology advanced. On-device AI is a technology that can “perceive, reason, and take intuitive actions based on awareness of the situation” and is reportedly more advanced than conventional algorithms. People with visual disabilities may encounter challenges with identifying packaged foods at home, while traveling, and in stores. However, on-device neural networks are currently in the development stages to complete tasks like labeled product recognition in real-time. Google has also recently developed its own on-device neural network model, Lookout, as an Android app aimed at assisting with accurate identification of products by including a product index, object tracking, and optical character recognition features.

The Google AI Blog provided an in-depth look at the design of Lookout. The Lookout system has the following components: frame cache, frame selector, detector, object tracker, embedder, index searcher, optical character recognition (OCR), scorer, and result presenter. The Frame Cache is the base that manages the “lifecycle” of the image and delivers the data to the other parts of the system. Each image frame goes through the detector to identify “regions of interest” in the frames, while the object trackers simultaneously detect the product’s shape in real-time. Subsequently, these regions of interest from the detector are sent to the embedder. The embedder unit narrows down the possibilities based on what Lookout “knows” or has learned from a neural network. The other components, index searcher and OCR, read the product and extract additional information such as package size and flavor. The scorer aspect of the model provides a list of results, and the top result after scoring is deemed the final result. The result presenter provides the product name via text-to-speech (TTS). On-Device models such as Lookout, are intended to provide technology-mediated access to real-world environments. [Source: Chao Chen via Google AI Blog; Qualcomm]

ADDITIONAL INFORMATION:

[On-device Supermarket Product Recognition
https://ai.googleblog.com/2020/07/on-device-supermarket-product.html](https://ai.googleblog.com/2020/07/on-device-supermarket-product.html)
[We are making on-device AI ubiquitous
https://www.qualcomm.com/news/onq/2017/08/16/we-are-making-device-ai-ubiquitous?cmpid=oofyus181544](https://www.qualcomm.com/news/onq/2017/08/16/we-are-making-device-ai-ubiquitous?cmpid=oofyus181544)

UPCOMING EVENTS

2020 M-ENABLING SUMMIT

The M-Enabling Summit will convene from September 14 to 16, 2020, in Washington, D.C. Summit presenters will cover topics such as robotics, wearables, virtual and augmented reality, artificial intelligence, and IoT.

ADDITIONAL INFORMATION:

[M-Enabling Website](#)

<https://m-enabling.com/>

VIRTUAL CONFERENCE COVERS A MYRIAD OF DISABILITY-RELATED TOPICS

The American Association for Access, Equity, and Diversity (AAAED) is hosting its 46th national conference, but this year it will be completely virtual. The theme of this year's annual conference is "Turning Obstacles into Opportunities." The conference commenced on June 23rd with a virtual summit, and Mickey Silberman, Esq., of Silberman Law gave the keynote address. Thereafter, the conference hosted two subsequent plenary panels named "ADA Thirtieth Anniversary: Celebration and Challenges" and "The Internet and Beyond: Federal Intervention and the Future of Work." On June 25th, they hosted the first of sixteen Virtual sessions that are bi-monthly until December 16th.

Upcoming sessions include:

September 16 Virtual Session #7

"TAG – You're It! What OFCCP's Technical Assistance Guide for Educational Institutions Clarifies (and What It Doesn't)"

September 29 Virtual Session #8

"Functional AAPs – Should We Seek Them and How Should We Organize Them"

October 21 Virtual Session #9

"Engaging Employees to Measure Success: Innovative Approaches to Encouraging Self-Identification"

ADDITIONAL INFORMATION:

[Conference Agenda](#)

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

[Conference Registration](#)

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

CSUN CALLS FOR JOURNAL PROPOSALS FOR 36TH ANNUAL CONFERENCE

The 36th annual California State University, Northridge (CSUN) call for journal paper proposals opened on August 20, 2020, and will remain open until Tuesday, September 15, 2020, at

3:00 pm (PDT). Accepted papers will be published in the *Journal on Technology & Persons with Disabilities*. The proposals should fall into one of the following broad topics: education, employment and workplace, entertainment and leisure, independent living, law and policy, or transportation. Author notifications are anticipated to be sent by Tuesday, September 29, 2020. The accepted authors will be invited to submit manuscripts between September 29, 2020 - October 13, 2020. After the journal is published, it will be made available online before the start of the 2021 CSUN Assistive Technology Conference. [Source: CSUN]

ADDITIONAL INFORMATION:

[Overview of the Journal Call for Papers](#)

<https://www.csun.edu/cod/srjcfp/overview.php>

2021 COLORADO EMERGENCY MANAGEMENT CONFERENCE STATEMENT

The Colorado Emergency Management Conference committee members met, and after reviewing the current modeling data and discussing COVID-19 impacts, the Colorado Emergency Management Association (CEMA) and Colorado Division of Homeland Security and Emergency Management (DHSEM) decided to look at alternatives to an in-person annual conference in February 2021. An in-person conference will not be scheduled in 2021. CEMA and DHSEM members are researching virtual conference options and will distribute a survey to gather your feedback on moving forward with a virtual or web-based conference.

ADDITIONAL INFORMATION:

[Subscribe to Receive Updates](#)

<https://www.colorado.gov/pacific/dhsem/join-our-media-list>

TECHNOLOGY AND DISABILITY POLICY HIGHLIGHTS, AUGUST 2020

[SUBSCRIBE TO NEWSLETTER](#)

The Technology and Disability Policy Highlights (TDPH) is a monthly newsletter that reports on national public policy events and tracks emerging issues of interest to individuals with disabilities, researchers, policymakers, industry, and advocacy professionals. The Wireless RERC is a research center that promotes universal access to wireless technologies and explores their innovative applications in addressing the needs, user experiences, and expectations of people with disabilities. For more information on the Wireless RERC, please visit our website at [\[http://www.wirelessrerc.org\]](http://www.wirelessrerc.org). For further information on items summarized in this report, or if you have items of interest that you would like included in future editions, please contact this edition's editors Salimah LaForce [salimah@cacp.gatech.edu] or Dara Bright [dara.bright@cacp.gatech.edu]. If you wish to update your email address, send an email to salimah@cacp.gatech.edu.

[Unsubscribe](#)

The contents of this newsletter were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90RE5025-01-00). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this newsletter do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.