

Technology and Disability Policy Highlights  

November 2018

The Federal Communications Commission (FCC) released a Public Notice announcing their call for nominations for the eighth annual Chairman’s Awards for Advancement in Accessibility (Chairman's AAA). Nominations are due by February 28, 2019, and can be made for various categories including accessible mainstream technologies, assistive technologies, technology standards, and best practices in delivering accessible solutions. Congruent with identifying best practices, but in the emergency communications domain, the FCC authorized a reexamination of the Wireless Resiliency Cooperative Framework which was created to ensure sustainable wireless communications during disasters. The comprehensive review sought to determine how the participating wireless companies utilized the framework during disaster events and implementation best practices.

To further ensure that FCC rules regarding hearing aid-compatible (HAC) mobile phones have the intended effect of improving communications access, the FCC adopted a Report and Order (R&O) *In the Matter of Revisions to Reporting Requirements Governing Hearing Aid-Compatible Mobile Handsets* [**WT Docket No. 17-228**]. The revised rules require that (1) each service provider offer its buyers a variety of HAC devices with differing levels of functionality, (2) manufacturers provide a publicly accessible online listing of all HAC models offered, the rating of these devices, and an explanation of the rating system. Prior comments of the Wireless RERC submitted to the FCC support the changes made in the R&O. For example, the Wireless RERC has long asserted that for people who use hearing aids, when purchasing a handset there are other mainstream *and* accessibility features to consider in conjunction with HAC compliance. One should not have to sacrifice phone features to ensure they are purchasing a HAC compliant phone.

In Wireless RERC news, project director, Maureen Linden traveled to Seoul, South Korea from November 5 – 11, 2018. Ms. Linden’s invited lecture at South Korea’s National Rehabilitation Center summarized her research in accessible education and inclusive wireless emergency communications. And speaking of research, if you have not already taken the [**Survey of User Needs**](http://bit.ly/2018UserNeedsSurvey), what are you waiting for? Sharing is caring. Please submit your experiences with and expectations of wireless devices and services, and ask others to do the same.

This issue also includes news about accessible gaming, transportation access, smart cities, an inclusive voting platform, aging with a disability, and more.

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

[Regulatory Activities](#regulatoryactivities) [Wireless RERC Updates](#wirelessrercupdates) [Other Items of Interest](#otheritemsofinterest) [Upcoming Events](#Upcomingevents)

Regulatory Activities

**Chairman's AAA Seeking Nominations**

November 27, 2018 – The FCC released a Public Notice announcing their call for nominations for the eighth annual Chairman’s Awards for Advancement in Accessibility (Chairman's AAA). The awards “recognize the efforts of individuals, organizations, academic institutions, companies, and government agencies to make communications tools more accessible to people with disabilities.” Nominations are due by February 28, 2019, and can be made for various categories including accessible mainstream technologies, assistive technologies, technology standards, and best practices in delivering accessible solutions, to name a few. Nominees will be evaluated on whether the initiative or technology was introduced in 2018, its impact on the lives of people with disabilities, its affordability and availability to the target end-user population, its originality, and the effect that FCC recognition would have on further advancing the technology, standard, or service. Send nominations to chairmansaaa@fcc.gov. Selected nominees will be announced at the M-Enabling Conference, in Arlington, Virginia, on June 18, 2019. A ceremony for the winners will be held at the FCC, the date of which is still to be determined.

#### Additional Information:

[Chairman’s AAA Call for Nominations](https://www.fcc.gov/document/fcc-seeks-nominations-chairmans-awards-accessibility)

Public Notice: [Doc –](https://docs.fcc.gov/public/attachments/DOC-355290A1.doc) [Pdf --](https://docs.fcc.gov/public/attachments/DOC-355290A1.pdf) [Txt](https://docs.fcc.gov/public/attachments/DOC-355290A1.txt)

**FCC’s New Hearing Aid-Compatibility Rules**

November 15, 2018 - The FCC adopted a Report and Order (R&O) *In the Matter of Revisions to Reporting Requirements Governing Hearing Aid-Compatible Mobile Handsets* [**WT Docket No. 17-228**]. One of the FCC’s primary objectives for mobile phone accessibility is to ensure that wireless handsets and hearing aid devices work together without interference. Last September, the FCC requested feedback from service providers on their current procedures, compliance with hearing aid-compatibility reporting, and annual certification. In this follow-up R&O, the FCC mandated the following improvements to service providers website: disclosure of non-hearing-aid compatible handsets, about discontinued handsets, and detailed information about the inventory of handsets that are HAC compliant. The Commission also adopted a service provider certification requirement that replaced the annual reporting requirement. This certification asserts that compliance is being met. The Commission’s report concludes with the ordering clauses that adopt the following amendments: (1) each service provider should offer its buyers with a variety of hearing aid-compatible devices with differing levels of functionality, (2) website and record retention stipulations oblige manufacturers to provide a publicly accessible online listing of all hearing aid-compatible models offered, the rating of these devices, and an explanation of the rating system. As it pertains to the removal of annual reporting, the Commission adopted an amendment that states service providers must submit certifications on their compliance with the requirements of the adopted amendments by January of each year.

Prior comments of the Wireless RERC submitted to the FCC support the changes made in the R&O. For example, the Wireless RERC has long asserted that for people who use hearing aids, when purchasing a handset there are other mainstream *and* accessibility features to consider in conjunction with HAC compliance. One should not have to sacrifice phone features to ensure they are purchasing a HAC phone. Also, Wireless RERC research indicated that hearing aid users experienced only incremental improvement in ease of finding a HAC wireless handset over the course of implementation of the HAC Act requirements. Substantial proportions of hearing aid users reported their search as being difficult or very difficult. The revision to the rules as outlined in the R&O addresses both provision of a range of functionality of HAC compliant devices and supporting consumer’s ability to discern between HAC compliant models and noncompliant models offered by the provider. [Sources: FCC; Wireless RERC]

#### Additional Information:

[News Release](https://docs.fcc.gov/public/attachments/DOC-355106A1.pdf)

<https://docs.fcc.gov/public/attachments/DOC-355106A1.pdf>

Report and Order: [Doc –](https://docs.fcc.gov/public/attachments/FCC-18-167A1.doc) [Pdf --](https://docs.fcc.gov/public/attachments/FCC-18-167A1.pdf) [Txt](https://docs.fcc.gov/public/attachments/FCC-18-167A1.txt)

[Wireless RERC on the Record - Hearing Aid Compatibility Regulations](http://www.wirelessrerc.gatech.edu/wireless-rerc-record-hearing-aid-compatibility-regulations)

<http://www.wirelessrerc.gatech.edu/wireless-rerc-record-hearing-aid-compatibility-regulations>

**FCC Investigates Wireless Resiliency**

November 6, 2018 - With the ever-increasing reliance on cellular service as a primary form of communication, wireless infrastructure resilience is integral to emergency response and recovery. As such, and in light of two years of devastating hurricane seasons, the FCC recently authorized a reexamination of the Wireless Resiliency Cooperative Framework. This framework was created by the wireless industry to ensure sustainable wireless communications during disasters. The Wireless Resiliency Cooperative Framework is composed of a five-pronged approach: (1) providing for reasonable roaming when technically feasible, (2) fostering mutual aid among wireless providers, (3) enhancing municipal preparedness and restoration by convening with local government public safety representatives to develop best practices and establishing a provider/911 call center contact database, (4) working to increase consumer readiness and preparation, and (5) improving public awareness and stakeholder communications on service and restoration status with county-by-county information. This comprehensive review seeks to determine how the participating wireless companies utilized the framework during disaster events, with a specific emphasis on honoring mutual aid agreements. The FCC also requested reports on best practices of implementation from these companies as well as a detailed list of the carriers’ collaborative agreements and any modifications made since 2016. Letters were sent to wireless providers detailing the specific information requested for the review. [Source: FCC]

#### Additional Information:

News Release: [Docx --](https://docs.fcc.gov/public/attachments/DOC-354963A1.docx) [Pdf](https://docs.fcc.gov/public/attachments/DOC-354963A1.pdf) -- [Txt](https://docs.fcc.gov/public/attachments/DOC-354963A1.txt)

[<https://www.fcc.gov/document/fcc-seeks-industry-input-review-wireless-resiliency-framework>]

Wireless RERC Updates

# Internationally Known-Wireless RERC Research goes to Seoul

Wireless RERC Project Director Maureen Linden traveled to Seoul, South Korea from November 5 – 11, 2018. While there, she gave a lecture at South Korea’s National Rehabilitation Center, presented research at the 12th Rehabilitation Engineering and Assistive Technology Society of (Korea RESKO) Technical Conference, represented the Rehabilitation and Assistive Technology Society of North American (RESNA) at the International Alliance of Assistive Technology Professional Organizations (AT Alliance) working meeting, and spoke in a panel discussion with other AT Alliance representatives.

Ms. Linden’s invited lecture at South Korea’s National Rehabilitation Center summarized her research in wireless emergency communications, as well as on accessible education for people with disabilities. Ms. Linden provided an overview of the Wireless RERC and its mission and spoke about development projects on the Wireless RERC’s Inclusive Emergency Lifelines Project focusing particularly on the accessibility of the notification signals and messages of Wireless Emergency Alerts (WEAs) for people with sensory impairments and learning disabilities. Twenty-five researchers and clinicians from the National Rehabilitation Hospital attended.

On November 8, 2018, Linden presented a scientific platform session on “The Accessibility of Wireless Emergency Communications: Updates from the Wireless RERC” at the RESKO Conference. The presentation was made to twenty conference attendees and focused on the accessibility of the notification signals and messages of WEAs for people with sensory impairments and learning disabilities.

Finally, Maureen represented RESNA in her role as President-Elect at the AT Alliance working meeting. During this meeting, Chapal Khasnabis, Technical Officer of the World Health Organization (WHO), charged the AT Alliance organizations with assisting WHO with their initiative to improve access to assistive technology around the globe. On November 9, 2018, Maureen and five other AT Alliance members discussed these proposed efforts during a RESKO plenary session to an international audience of approximately 125 conference attendees.

# Tell Us About Your Wireless Devices!

To inform the inclusive development of wireless technologies and services, the[**Rehabilitation Engineering Research Center for Wireless Inclusive Technologies (Wireless RERC)**](http://www.wirelessrerc.gatech.edu/tags/newsroom/wireless-rerc-news)is collecting data on people with disabilities’ user experiences and expectations. If you have not already taken our [**Survey of User Needs**](http://bit.ly/2018UserNeedsSurvey), what are you waiting for? Sharing is caring. Please submit your responses, and ask others to do the same. It takes approximately 15 minutes to complete.

Take the survey online at [**http://bit.ly/2018UserNeedsSurvey**](http://bit.ly/2018UserNeedsSurvey)

Or

To take the survey by telephone contact: Salimah LaForce at 404-894-8297

Other Items of Interest

# Improved Gaming Technology for Players with Visual Disabilities

November 18, 2018 - Video game companies are seeking to expand their targeted demographics by increasing their devices’ inclusivity and accessibility. The focus is to improve the gaming experience for users with visual impairment. Strides have been made to enhance video gaming by including audio cues for features of the game such as sound indicators for when vehicles turn or when obstacles are near. Developers are also interested in incorporating racing auditory display (RAD) concepts into all forms of video games. RAD is a newly developed audio-based interface that utilizes a pair of headphones for gamers to play racing games. It provides players with visual impairment with the opportunity to have an experience congruent to sighted players. Currently, the RAD technology is limited to racing games; however, efforts to expand this technology is present in the latest devices like the PlayStation 4. [Source: Holly Evarts, Columbia Engineering; Aishah Hassan, Quartzy]

#### Additional Information:

These Technologies are Improving Video Game Accessibility for the Blind

[<https://engineering.columbia.edu/press-releases/rad-blind-video-games>]

[For Blind Gamers, Equal Access to Racing Video Games](https://engineering.columbia.edu/press-releases/rad-blind-video-games)

[<https://qz.com/quartzy/1467802/video-game-technology-improving-accessibility-for-the-blind/>]

**Expansion of Accessibility in the Digital Age**

November 9, 2018 - Recent discussions about clarifying and expanding the Americans with Disabilities Act (ADA) to include online accessibility sparked advocacy groups and standards making bodies to urge businesses to proactively address web access. The World Wide Web Consortium (W3C), Web Accessibility Initiative (WAI) provided strategies, standards, and supporting resources to show businesses the practicality of addressing accessibility in *The Business Case for Digital Accessibility*. WAI utilized a four-pronged rationale to illustrate how inclusivity is good for business. The four-prongs include the ability of inclusive technology to (1) drive innovation, (2) enhance the brand, (3) extend market reach, and (4) minimize legal risk. For example, WAI showed how incorporating accessibility features into products would raise revenue, as people with disabilities have a spending power of more than 6 trillion dollars. It also demonstrated a corporate commitment to equality. The WAI highlighted several case studies to illuminate how beneficial inclusivity is to everyone. [Source: Web Accessibility Initiative]

#### Additional Information:

The Business Case for Digital Accessibility

[<https://www.w3.org/WAI/business-case/>]

**Inclusive Wireless Technology for Transportation Access**

November 8, 2018 - In South Coast British Columbia, progressive technology recently emerged to improve the accessibility of public transit. Hyperlight Systems developed technology that helps smart cities provide accessible public transit. This new transit system eradicates the need for those with disabilities to tap, swipe, or push buttons at transit sites for elevators, fare gates, buses or trains. One highlight of Hyperlight System’s inclusive technology project is the touchless elevators. The new transit system is completely hands-free thanks to the OpenHAP (Hands-free Access Point) program. It automatically opens fare gates with the use of a Radio Frequency Identification (RFID) card that prompts the doors to open. Access to the RFID card is available to eligible users. Other transportation companies around the world have already looked towards South Coast British Columbia as a model to improve access to, and ease of independent use of public transportation.

New Star, a non-profit organization based in Chicago Heights has developed an app alternative to Uber and Lyft, that is friendly to, and understanding of people with intellectual and developmental disabilities (IDD). The app, dubbed Scoot--Stronger Communities through Open and Organized Transportation, also intends to improve transportation access for people with disabilities. However, Scoot goes beyond a technology solution and will have a fleet of accessible vehicles with drivers that completed disability awareness and interactions training. The Northeast Arc stated that Scoot “aims to make sure they [people with IDD] can travel easily and safely from home to jobs and community interactions — a key to solving the problems of isolation.” [Sources: Tamira Nasanbat Mass Transit Mag; Mike Nolan, Daily Southtown]

#### Additional Information:

[Public-Private Partnership Between TransLink and Hyperlight Systems Results in the World’s First Hands-Free Fare Gate Solution](https://www.masstransitmag.com/article/12433817/public-private-partnership-between-translink-and-hyperlight-systems-results-in-the-worlds-first-hands-free-fare-gate-solution)

[<https://www.masstransitmag.com/article/12433817/public-private-partnership-between-translink-and-hyperlight-systems-results-in-the-worlds-first-hands-free-fare-gate-solution>]

**Crowdsourcing Smart City Access**

November 6, 2018 - People with disabilities, advocates, and allies are insisting that smart cities be accessible cities and they are employing app-based methods to raise a city’s accessibility IQ. Individuals with disabilities volunteered at an event held in Nashville called a “map-a-thon” where they evaluate restaurants, cafes, shops, and other locations for features that indicate if a facility is inclusive and accessible to people with disabilities. Feedback, or data, is submitted in an app and it accumulates in a database of crowdsourced accessibility information. The goal of this work is two-fold. First, the city hopes to document the features of the city that are inaccessible and strategically plan to close those gaps. Secondly, the database is a resource for individuals with a disability as they navigate a city. It is similar to other apps like “disability Yelp,” AXS Map, Access Earth, AccessNow, and Wheelmap. Events like “map-a-thon,” and the apps they inform, assist cities about accessibility best practices and teach citizens about disability activism. Even if an individual does not identify as a person with a disability, they can engage with this activism and promote awareness of barriers that many people with disabilities face. However, the author warns that the apps are only as good as the data they acquire and suggests that people consider all disability types when mapping a location’s accessibility and to go beyond the binary accessible/not accessible coding to be specific about access to the physical space and services and programs rendered. [Source: Aime Hamraie, The Atlantic]

#### Additional Information:

# [A Smart City Is an Accessible City](https://www.theatlantic.com/technology/archive/2018/11/city-apps-help-and-hinder-disability/574963/)

[<https://www.theatlantic.com/technology/archive/2018/11/city-apps-help-and-hinder-disability/574963/>]

**Inclusive Voting Portal Launched in Time for Election Day**

November 5, 2018 - Democracy Live, a Seattle-based company, recently launched an online voting portal for Americans who cannot vote via the customary ballot system. This new and potentially transformative method of voting could greatly shape how Americans engage with elections. The Democracy Live company calls the online ballot OmniBallot. PR Newswire highlights various causes that prevent voters from marking the ballot, such as military stationing, a disability, or living abroad. Currently, there are over twenty-five million Americans who fall within this category that are eligible to use the OmniBallot system. The design of this online ballot increases accessibility for individuals with disabilities who often are unable to access physical polling places. "The Democracy Live system is a marvelous example of a universally designed ballot system. It provides a valuable resource for all voters, including those with disabilities who often lack access to this critical information" said Debbie Cook of the University of Washington Center for Technology and Disability Studies.

The OmniBallot system works through Amazon AWS or Microsoft Azure, depending on the location of the voter. These two software systems allow the ballots to be delivered promptly to their respective voting district. Democracy Live is hopeful that OmniBallot will be used widely in the coming elections. [Source: PR Newswire]

#### Additional Information:

[Military and Disabled Voting Portal Launched](http://www.sys-con.com/node/4341631)

[<http://www.sys-con.com/node/4341631>]

**Funding Award to Research Aging with a Disability**

November 5, 2018 - The National Institute of Disability, Independent Living and Rehabilitation Research (NIDILRR) awarded TechSAge a five year, $4.6 million grant that will go towards the development of innovative technologies that assist people aging with disabilities to maintain independent living. TechSAge, a research center at the Georgia Institute of Technology and in collaboration with the [University of Illinois at Urbana-Champaign](https://illinois.edu/), is comprised of researchers and staff in the [Center for Assistive Technology and Environmental Access](https://catea.gatech.edu/) (CATEA), the [Interactive Media Technology Center](http://imtc.gatech.edu/) (IMTC), and [AMAC Accessibility Solutions](http://www.amacusg.org/). There are many projects planned for this second round of funding. One project seeks to mitigate risks of falling, specifically focusing on those aging with mobility disabilities. Many projects examine the redesign of existing technologies and apps that were traditionally created for the general population to make them accessible for individuals with disabilities and the aging population. Jon Sanford, TechSAge principal investigator said, “We’re focusing more on new and developing technologies, particularly voice-activated digital assistants such as Amazon Alexa and Internet of Things (IoT) technologies, to understand their utility and practical applications for people who are aging with disability and want to remain at home (aging in place). We’re really excited about partnerships with Amazon and Anthem Innovation Studios that will help us expand and enhance our annual student competition focused on these technologies.” [Sources: Alyson Powell Key, Institute for People and Technology; Claire Budin, The Daily Illini]

#### Additional Information:

[TechSAge Receives Grant to Support Aging-in-Place for People with Long-Term Disabilities](http://ipat.gatech.edu/news/techsage-receives-grant-support-aging-place-people-long-term-disabilities)

[<http://ipat.gatech.edu/news/techsage-receives-grant-support-aging-place-people-long-term-disabilities>]

[Grant aids aging with disabilities](https://dailyillini.com/news/2018/11/05/grant-aids-aging-with-disabilities/)

[<https://dailyillini.com/news/2018/11/05/grant-aids-aging-with-disabilities/>]

**Technology as a Tool to Increase Education Access**

November 1, 2018 - In the state of Arizona, education legislators implement efforts to increase accessibility for students with hearing impairment. Some tools that have been introduced to the educational system include hearing loops, tablet computers loaded with video-relay service (VRS), and other video phone communications. Even at the college level, universities in Arizona have taken steps to promote inclusion of students with hearing impairments. Students who major in journalism and communications at Arizona State University are provided with courses where verbal communication is prohibited, and they are taught to converse using only non-verbal languages like American Sign Language. Meanwhile, the state has worked to incorporate accessible technology throughout the state’s infrastructure. [Source: Sally Rodriguez, The State Press]

#### Additional Information:

[Technology could be the key to bolster independence for hard-of-hearing students](http://www.statepress.com/article/2018/11/spcommunity-hard-of-hearing-accessibility)

[<http://www.statepress.com/article/2018/11/spcommunity-hard-of-hearing-accessibility>]

Upcoming Events

**2019 Consumer Electronics Show (CES)**

The 2019 CES will convene January 8 through 11, 2019 at multiple venues in Las Vegas, Nevada. CES has more than 4,500 exhibiting companies, from industry giants to startups, and more than 250 conference sessions. Attendees are anticipated to be upwards of 180,000 people representing 150 countries. Find out more about who you could meet by checking out the [CES 2018 Attendance Audit Summary](https://cdn.ces.tech/ces/media/pdfs/ces-2018-audit-summary.pdf) (PDF).

#### Additional Information:

[CES Website](https://www.ces.tech/About-CES.aspx)

[<https://www.ces.tech/About-CES.aspx>]

**2019 Assistive Technology Industry Association (ATIA) Conference**

ATIA 2019 will convene January 29 through February 2, 2019, at the Caribe Royale Hotel and Convention Center in Orlando, Florida. AT professionals, providers, and consumers come together to hear the latest trends and best practices regarding assistive technology across many domains, including education, employment, and policy. Georgia Tech’s very own AMAC Accessibility will be exhibiting and presenting at the conference.

#### Additional Information:

[ATIA Website](https://www.atia.org/conference/)

[<https://www.atia.org/conference/>]

**EPM-RRTC State of the Science Conference**

The University of New Hampshire’s Employment Policy and Measurement Rehabilitation and Training Center (EPM-RTC) will convene its State of the Science conference on Tuesday, February 12, 2019. A preview of the *2018 Annual Disability Statistics Compendium* is likely as it is scheduled for release on the following day, Wednesday, February 13th. The *Compendium* is produced by the Disability Statistics and Demographics Rehabilitation Research and Training Center (StatsRRTC) which is also led by personnel at the University of New Hampshire’s Institute on Disability.

#### Additional Information:

[Conference Website](https://iod.unh.edu/event/2018-epm-rrtc-state-science-conference)

[<https://iod.unh.edu/event/2018-epm-rrtc-state-science-conference>]

**AAAED 45th National Conference and Annual Meeting**

Save the datefor our 45th National Conference and Annual Meeting to be held June 11 through 13, 2019 in Indianapolis, IN. The theme will be “Moving Beyond Diversity Towards Equity and Inclusion.”

#### Additional Information:

If you would like to join the Committee, please email us at [Conference2019@aaaed.org](Conference2019%40aaaed.org).

**Technology and Disability Policy Highlights,** November 2018



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 of people with disabilities. For more information on the Wireless RERC, please visit our website at [<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](file:///C%3A%5CUsers%5Csalimah%5COneDrive%20-%20Georgia%20Institute%20of%20Technology%5CwiRERC_2016%20-%202021%5CTDPH%5CApril%202017%5Csalimah%40cacp.gatech.edu)] or Dara Bright [dara.bright@cacp.gatech.edu]. If you wish to unsubscribe or update your email address, send an email to salimah@cacp.gatech.edu.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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.