

Technology and Disability Policy Highlights  

Winter Issue: December 2018 – January 2019

In the regulatory space, the Federal Communications Commission (FCC) is [seeking input from people with disabilities](https://www.fcc.gov/document/improving-wireless-resiliency-through-power-company-coordination) and other stakeholders about how best to facilitate the coordination of communications providers, power companies, and the Public Safety and Homeland Security Bureau to enable a robust and rapid response to emergencies. Specifically, the concern is keeping people connected to communications in the event of power outages or service interruptions. Also, the 21st Century Communications and Video Accessibility Act of 2010’s (CVAA) reach across industry types was demonstrated. The FCC released a Public Notice inviting comment on a *Petition Filed by General Motors Holding LLC (GM) for Partial Waiver of Real-Time Text (RTT) Minimum Functionality Requirements* [**GN Docket No. 15-178**]. In anticipation of GM’s autonomous vehicles ride-hailing service, the company developed a Chat App that would allow riders to communicate by voice or text with a customer service representative, but GM contends that their service falls outside of the definition of an advanced communications service. The gaming industry also felt the impact of the CVAA, as January marked the end of any more waivers for full compliance. As such, this year and beyond, we should see the ever-increasing accessibility of gaming systems.

In Wireless RERC News, one of our partnering universities, the Center for Leadership in Disability at Georgia State University, is inviting all professionals, parents/guardians, and individuals with intellectual and developmental disabilities to share perspectives on how wireless technology can be used in the workplace. Responses and feedback will help mold the future role that wireless technologies and wearables can play in the lives of people with intellectual and developmental disabilities. Please take the survey: [https://gsu.qualtrics.com/jfe/form/SV\_e3QJ2V79lSdnkyh](https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgsu.qualtrics.com%2Fjfe%2Fform%2FSV_e3QJ2V79lSdnkyh&data=02%7C01%7Cejimenez7%40gsu.edu%7C99eaa361fc9b4b13935708d6821b7afc%7C515ad73d8d5e4169895c9789dc742a70%7C0%7C0%7C636839451868242941&sdata=MV9ngv17Ka3R9f9kAZtzQ6NoyA1Qiyl52e1T%2FcHT4So%3D&reserved=0). Also, Wireless RERC researchers Clint Zeagler, Maribeth Gandy, and Paul M.A. Baker authored [The Assistive Wearable: Inclusive by Design](https://www.atia.org/wp-content/uploads/2019/01/ATOB-V12_Iss1_Article2.pdf) article which was recently published in the journal on *Assistive Technology Outcomes and Benefits*. A [new research brief](wireless-rerc-research-brief-18-01-1.pdf) by researchers Nathan W. Moon, Paul M.A. Baker, and Kenneth Goughnour, summarizes findings from focus groups which explored accessibility, social appropriateness, and cultural acceptability issues of wireless technology related use among individuals with disabilities.

This issue also includes news about smart gloves, the Vitals App, augmented reality, the Facing Emotions App, Project Soli, virtual reality, and more.

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

[Regulatory Activities](https://gtvault-my.sharepoint.com/personal/mz22_gatech_edu/Documents/wiRERC_2016%20-%202021/TDPH/August%202018/Technology%20and%20Disability%20Policy%20Highlight%20%28TDPH%29_%20August%202018.docx#regulatoryactivities) [Wireless RERC Updates](https://gtvault-my.sharepoint.com/personal/mz22_gatech_edu/Documents/wiRERC_2016%20-%202021/TDPH/August%202018/Technology%20and%20Disability%20Policy%20Highlight%20%28TDPH%29_%20August%202018.docx#wirelessrercupdates) [Other Items of Interest](https://gtvault-my.sharepoint.com/personal/mz22_gatech_edu/Documents/wiRERC_2016%20-%202021/TDPH/August%202018/Technology%20and%20Disability%20Policy%20Highlight%20%28TDPH%29_%20August%202018.docx#otheritemsofinterest) [Upcoming Events](https://gtvault-my.sharepoint.com/personal/mz22_gatech_edu/Documents/wiRERC_2016%20-%202021/TDPH/August%202018/Technology%20and%20Disability%20Policy%20Highlight%20%28TDPH%29_%20August%202018.docx#Upcomingevents)

**Regulatory Activities**

**Communications Access Before, During and After Disasters**

January 3, 2018 - The FCC released a Public Notice on *Wireless Resiliency and Power Company Coordination* [**PS Docket No. 11-60**] seeking stakeholder input about how best to facilitate the coordination of communications providers, power companies, and the Public Safety and Homeland Security Bureau to enable a robust and rapid response to emergencies. Specifically, the concern is keeping people connected to communications in the event of power outages or service interruptions. Of note, the FCC wants to hear from people with disabilities about “how their access to communications systems (including wireline, wireless, satellite, broadcast, and cable networks) was impacted by the loss of power leading up to, during, and following disasters.” Initial comments are due on February 8, 2019, and reply comments are due on February 25, 2019.

Prepared comments for docket number 11-60 can be uploaded via the FCC’s Electronic Comment Filing System at <https://www.fcc.gov/ecfs/filings>. If you need assistance with how to file reply comments, contact salimah@cacp.gatech.edu.

#### Additional Information:

#### Links to the Public Notice on Wireless Resiliency and Power Company Coordination:

#### URL:  <https://www.fcc.gov/document/improving-wireless-resiliency-through-power-company-coordination>

#### Word:   <https://docs.fcc.gov/public/attachments/DA-19-13A1.docx>

#### PDF:  <https://docs.fcc.gov/public/attachments/DA-19-13A1.pdf>

#### Text:  <https://docs.fcc.gov/public/attachments/DA-19-13A1.txt>

**Times up! The Gaming Industry Must Comply with Accessibility Mandates**

January 2019 – As of January 1st, the gaming industry must release games that are accessible to and usable by people with disabilities. The 21st Century Communications and Video Accessibility Act of 2010 (CVAA) has new implications for gaming software, gameplay, and distribution networks. The compliance date for most industries was 2012; however, games, consoles, and gameplay networks had a series of waivers that extended until December 2018. Now, the FCC requires gaming systems to be compliant and accessible to individuals with a variety of disabilities. All communications functionality must be inclusive and accessible with a wide range of conditions. The article lists some examples of inclusive communications functionality such as video chat, text chat, and voice chat. However, the CVAA is unique in that it requires the inclusion of people with disabilities during the design, development, and testing phases. In technology development, retroactive action is common; but the CVAA stipulation regarding the involvement of people with disabilities is intended to diminish the need for retrofitting for accessibility. If the gaming system does not meet CVAA compliance, then the FCC will intervene. Prior to imposing a fine on the company, the FCC will attempt to mediate and fix the issue. The CVAA outlines the definition and parameters of accessible as:

* Operable without vision. Provide at least one mode that does not require user vision.
* Operable with low vision and limited or no hearing. Provide at least one mode that permits operation by users with visual acuity between 20/70 and 20/200, without relying on audio output.
* Operable with little or no color perception. Provide at least one mode that does not require user color perception.
* Operable without hearing. Provide at least one mode that does not require user auditory perception.
* Operable with limited manual dexterity. Provide at least one mode that does not require user fine motor control or simultaneous actions.
* Operable with limited reach and strength. Provide at least one mode that is operable with user limited reach and strength.
* Operable with a Prosthetic Device. Controls shall be operable without requiring body contact or close body proximity.
* Operable without time-dependent controls. Provide at least one mode that does not require a response time or allows response time to be bypassed or adjusted by the user over a wide range.
* Operable without speech. Provide at least one mode that does not require user speech.
* Operable with limited cognitive skills. Provide at least one mode that minimizes the cognitive, memory, language, and learning skills required of the user.

[Sources: FCC; dualshockers.com]

#### Additional Information:

[Twenty-First Century Communications and Video Accessibility Act of 2010 - Pub. L. 111-260](https://www.fcc.gov/consumers/guides/21st-century-communications-and-video-accessibility-act-cvaa)

[<https://www.fcc.gov/consumers/guides/21st-century-communications-and-video-accessibility-act-cvaa>]

[Games After January 1, 2019, Must Have Accessible Communications Under CVAA Legislation [UPDATE]](https://www.dualshockers.com/cvaa-2019-games-to-be-made-accessible-for-disabilities/)

[<https://www.dualshockers.com/cvaa-2019-games-to-be-made-accessible-for-disabilities/>]

**The CVAA’s Reach is Far-Impacting GMs Plans for Autonomous Vehicles**

December 23, 2018 – The FCC released a Public Notice inviting comment on a *Petition Filed by General Motors Holding LLC (GM) for Partial Waiver of Real-Time Text (RTT) Minimum Functionality Requirements* [**GN Docket No. 15-178**]. In anticipation of GM’s autonomous vehicles ride-hailing service, the company developed a Chat App that would allow riders to communicate by voice or text with a customer service representative. GM’s primary argument for why the waiver should be granted lies in the fact that the Chat App is a non-interconnected Voice over Internet Protocol (“VoIP”) service, thereby relieving them from fully complying with the suite of RTT technical and functional requirements. However, GM *will* include RTT as an option for contacting customer support, but they are seeking relief from having to enable the Chat App to have RTT-RTT interoperability, RTT-TTY interoperability; RTT communications with 911 call centers because the Chat App is designed only for contacting customer support and not for general communications. Reply comments may be submitted to the FCC on or before February 11, 2019.

#### Additional Information:

[Read the Public Notice Regarding GM’s Waiver Request](https://www.kelleydrye.com/KelleyDrye/media/News-Pubs-and-Events-Images/DA-18-1301A1.pdf)

[<https://www.kelleydrye.com/KelleyDrye/media/News-Pubs-and-Events-Images/DA-18-1301A1.pdf>]

[Read GM’s Petition for the RTT Waiver](https://ecfsapi.fcc.gov/file/1211251984697/As-filed%20GM%20RTT%20waiver%2012-11-18.pdf)

[<https://ecfsapi.fcc.gov/file/1211251984697/As-filed%20GM%20RTT%20waiver%2012-11-18.pdf>]

**Wireless RERC Updates**

**Take the Wireless Technologies and Employment Survey**

The Center for Leadership in Disability at Georgia State University cordially invites all professionals, parents/guardians, and individuals with intellectual and developmental disabilities to share your perspective on how wireless technology can be used in the workplace. Your responses and feedback will help mold the future role that wireless technologies and wearables can play in the lives of people with intellectual and developmental disabilities. We have designed a brief survey to prompt your ideas about how technology is utilized in the workplace and barriers to using them. Your outlook and experiences will shape the research we are doing here at the Center for Leadership in Disability.

**Please click on the link to take the survey:** [**https://gsu.qualtrics.com/jfe/form/SV\_e3QJ2V79lSdnkyh**](https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgsu.qualtrics.com%2Fjfe%2Fform%2FSV_e3QJ2V79lSdnkyh&data=02%7C01%7Cejimenez7%40gsu.edu%7C99eaa361fc9b4b13935708d6821b7afc%7C515ad73d8d5e4169895c9789dc742a70%7C0%7C0%7C636839451868242941&sdata=MV9ngv17Ka3R9f9kAZtzQ6NoyA1Qiyl52e1T%2FcHT4So%3D&reserved=0)

This survey will take about 10 to 30 minutes to complete. Feel free to share this with people you know. This survey will be open until **June 30th**.

*This study has been approved by the Institutional Review Board at Georgia State University*

*IRB number: H18099*

**Social and Cultural Acceptance of Next-Generation Wireless Devices**

January 2019 - A new research brief by CACP researchers Nathan W. Moon, Paul M.A. Baker, and Kenneth Goughnour, summarizes findings from focus groups which explored accessibility, social appropriateness, and cultural acceptability issues of wireless technology related use among individuals with disabilities. The research was conducted for the Rehabilitation Engineering Research Center on Wireless Inclusive Technologies (Wireless RERC). A total of 41 individuals with disabilities who use smartphones, wearables, and "smart home" devices participated in the study.

#### Additional Information:

[Read the Research Brief](wireless-rerc-research-brief-18-01-1.pdf)

[[wireless-rerc-research-brief-18-01-1.pdf](http://www.wirelessrerc.gatech.edu/sites/default/files/wireless-rerc-research-brief-18-01-1.pdf)]

[**The Assistive Wearable: Inclusive by Design**](http://r20.rs6.net/tn.jsp?f=001wwc6IOH7CPx8W0m_M4VumkXB0TjC4X74TVOfltemIv2DTUSiHbYWLMJqvSqH9YUF24SblQ8aWgT4u7BpAyLGgSBIrVBDiphYfQZCvA1O7qTyJcPJ4jqUohtgCr41Paib9PkcYBwvS2bNx94TMlxGgb5U3oxBpaniWyddhfNBieOu1jMT5XrTOIfNUFsTxICUJ1ycQzHwWYMu2z_zEqTL6Smhog01ZrSzCD_WJdlOWValHS9VasrtCgG44rcTL4O1&c=_bM3FAg-AYzkUNj-EBc7eXTGA4W1oKvPHKdmSVZzuy2eaV8O4CdhnQ==&ch=mMEKU1HT95UfvOUnyXjfnlMGyY3x2Y2V2R9cz_FE7x3QH_CIjMaFmg==)

January 2019 - Wireless RERC researchers Clint Zeagler, Maribeth Gandy, and Paul M.A. Baker authored [The Assistive Wearable: Inclusive by Design](https://www.atia.org/wp-content/uploads/2019/01/ATOB-V12_Iss1_Article2.pdf) article which was recently published in the journal on *Assistive Technology Outcomes and Benefits*. The issue’s theme is "Implementing AT in Practice: New Technologies and Techniques" and is available for [free download](https://www.atia.org/wp-content/uploads/2019/01/ATOB-V12_FINAL.pdf).

**Abstract:** Wearable technology has the potential to usher in a new wave of assistive technology. Many wearable devices are already being used by people with disabilities as assistive technology. Here we discuss how designers might use design considerations and body maps to make sure that the wearable devices they are creating are accessible to everyone. The hope is that, with a thoughtful process, new wearable technology can also act seamlessly as assistive technology.

#### Additional Information:

[The Assistive Wearable: Inclusive by Design](http://r20.rs6.net/tn.jsp?f=001wwc6IOH7CPx8W0m_M4VumkXB0TjC4X74TVOfltemIv2DTUSiHbYWLMJqvSqH9YUF24SblQ8aWgT4u7BpAyLGgSBIrVBDiphYfQZCvA1O7qTyJcPJ4jqUohtgCr41Paib9PkcYBwvS2bNx94TMlxGgb5U3oxBpaniWyddhfNBieOu1jMT5XrTOIfNUFsTxICUJ1ycQzHwWYMu2z_zEqTL6Smhog01ZrSzCD_WJdlOWValHS9VasrtCgG44rcTL4O1&c=_bM3FAg-AYzkUNj-EBc7eXTGA4W1oKvPHKdmSVZzuy2eaV8O4CdhnQ==&ch=mMEKU1HT95UfvOUnyXjfnlMGyY3x2Y2V2R9cz_FE7x3QH_CIjMaFmg==)

[<https://www.atia.org/wp-content/uploads/2019/01/ATOB-V12_Iss1_Article2.pdf>]

**CACP's Founding Director to Step Down after 21 Transformative Years**

January 2019 - Twenty-one years after arriving at the Georgia Institute of Technology, Regents' Researcher Dr. Helena Mitchell is stepping down from her role as the executive director of the Center for Advanced Communications Policy (CACP). But she is not leaving her work behind, not just yet, anyway. [Mitchell](https://www.iac.gatech.edu/people/faculty/mitchell) plans to remain as principal investigator on the [Rehabilitation Engineering Research Center for Wireless Technologies](http://wirelessrerc.gatech.edu), a multi-institution interdisciplinary center that has generated $14.5 million in funding from the U.S. Department of Education since 2001. Under Mitchell's leadership, the [CACP](http://cacp.gatech.edu) which includes the Wireless RERC, has expanded to include 10 full-time employees and 30 affiliated researchers, engineers, and staff, and a portfolio that spans a broad range of technology policy issues, including wireless technologies, accessible technology, emergency communications, STEM education, workforce development, and more.

“All the while, a rapidly shifting technological landscape has kept things interesting,” Mitchell said. “The stimulating part has been the combination of the technology rapidly evolving and the type of people that that attracts to work with us,” she continued. “The years have flown past, from beginning as an Eminent Scholar to my current position as a Regents' Researcher. I love my work and the incredible team members that make up CACP, my colleagues at the School of Public Policy, and throughout Georgia Tech. Kaye Husbands Fealing, professor and chair of the [School of Public Policy](https://spp.gatech.edu/research-areas/information-communications) in the [Ivan Allen College of Liberal Arts](https://www.iac.gatech.edu), which houses the CACP, said the center has a strong team in place and is set up for a bright future.

Dr. Brad Fain, principal research scientist at the Georgia Tech Research Institute and at CACP, has been appointed as CACP’s new executive director. The appointment was announced on January 2, 2019, by Ivan Allen College of Liberal Arts Dean Jacqueline Royster. Fain brings to bear more than 25 years of experience in human performance. He directs Georgia Tech’s HomeLab research initiative and leads a team that is pioneering research into issues and products design to assist with successful aging in place. Fain has extensive experience developing technologies, evaluation processes, and curriculum in the field of accessible design, and currently leads a project to build a virtual reality usability testbed for first responder technologies enabled by FirstNet for the National Institute for Standards and Technology (NIST). He also pioneered the development of Consumer Product Integration (CPI) as a design process for the realization of products with universal design features.

Mitchell will remain as the principal investigator on the Wireless RERC until 2021, working to help nurture some projects to completion and to continue working with graduate students. She eventually hopes to shift her attention to writing historical fiction. [Source: Michael Pearson and Rebecca Keane, Ivan Allen College.]

#### Additional Information:

[CACP's Founding Director to Step Down after 21 Transformative Years](http://www.cacp.gatech.edu/content/cacps-founding-director-step-down-after-21-transformative-years)

[<http://www.cacp.gatech.edu/content/cacps-founding-director-step-down-after-21-transformative-years>]

[News: Brad Fain Named Executive Director of Center for Advanced Communications Policy](https://spp.gatech.edu/news/item/615791/brad-fain-named-executive-director-center-advanced-communications-policy)

[<https://spp.gatech.edu/news/item/615791/brad-fain-named-executive-director-center-advanced-communications-policy>]

**Other Items of Interest**

**The Prevalence and Expansion of Smart Gloves**

January 16, 2019 – Some smart gloves allow wireless conversion of sign language into text; some enable the user to control objects in gaming systems. As the capabilities of smart gloves increase accessibility for a lot of people, analysts have observed market growth for this product. However, they argue that their price point hinders the type of market growth that this product could truly garner. Developing a product that is accessible also involves ensuring that it is affordable. Designers of smart gloves assert that the high price is partly due to the expensive sensors, scanning, and recognition components. But analysts contend that this is not the only hindrance to the market growth of the wearables. Technical errors, such as a lagging response at critical times which lead to failure in medical emergencies, show that, for some potential users, the current price tag is not justified. These issues, however, are solvable. Developers of these wearable devices would need to improve the capabilities of the glove to support human functions. Within the smart gloves sphere, engineers have created an IoT-enabled intelligent glove that can monitor temperature, detect ambient lighting, and recognize gestures. These devices have also incorporated the use of Bluetooth that allows for better control over the virtual glove by sending sensations to the user. These sensors identify finger movements and receive commands in response to them. In spite of technological hiccups, the U.S. smart gloves have the highest revenue and growth shares. [Source: Heraldkeeper via COMTEX]

#### Additional Information:

[Smart Wearable Gloves Market Analysis By Technological Advancement, Regional Outlook And Forecast to 2024](https://www.marketwatch.com/press-release/smart-wearable-gloves-market-analysis-by-technological-advancement-regional-outlook-and-forecast-to-2024-2019-01-16)

[<https://www.marketwatch.com/press-release/smart-wearable-gloves-market-analysis-by-technological-advancement-regional-outlook-and-forecast-to-2024-2019-01-16>]

**Specialized Call Center for Individuals with Disabilities**

January 13, 2019 - The Comcast Accessibility Center of Excellence (ACOE) is comprised of specially trained agents that are dedicated to assisting its customers with disabilities. ACOE is the company’s largest accessibility support center in the country that focuses on helping user’s access and utilize the X1 television platform and troubleshoot connectivity issues. The X1 television platform has a voice-enabled television user interface that includes a guide that reads program titles and time slots as well as a video description feature that reports on the visual elements of a television show. Both features are included free of charge for customers. The ACOE also has a digital care, mobile, retention, and retail affiliate teams. These ACOE teams work alongside the Comcast Accessibility and Product Development Lab that hosts focus groups to test products and gather feedback. The Lab actively works to include people with disabilities. The article also highlights several other cable networks that work to improve accessibility for customers with disabilities. CenturyLink, DirecTV, and Dish Network include audio navigation in their television boxes for customers with vision disabilities. [Source: Spokesman-Review, Amy Edelen]

#### Additional Information:

[Comcast aims to help customers with disabilities through call center, technology](http://www.spokesman.com/stories/2019/jan/13/comcast-aims-to-help-customers-with-disabilities-t/)

[<http://www.spokesman.com/stories/2019/jan/13/comcast-aims-to-help-customers-with-disabilities-t/>]

**Improving Law Enforcement Interactions with People with Disabilities**

January 10, 2019 - The Vitals App, developed in conjunction with the Autism Society of Minnesota, was designed to prevent situations between people with cognitive disabilities and first responders from intensifying. Individuals with cognitive or developmental disabilities, as well as the families of these individuals, can create a profile and input as many details about themselves as they like. Departments of first responders subscribe to the app for $9.95/officer. The first responders receive an alert whenever they are within 80 feet of a registered user. The critical information allows the first responders to assess the situation quickly, determine if intervention is necessary, and respond with the appropriate action. The Vitals App was met with positive feedback and has begun to expand to other states, schools, and group homes to assist leaders within those organizations to swiftly access critical information about their population. [Source: Taryn Phaneuf, MinnieInno]

#### Additional Information:

[How an App Is Helping Minnesota Police Interact With People With Disabilities](https://www.americaninno.com/minne/twin-cities-startup/how-an-app-is-helping-minnesota-police-interact-with-people-with-disabilities/)

[<https://www.americaninno.com/minne/twin-cities-startup/how-an-app-is-helping-minnesota-police-interact-with-people-with-disabilities/>]

**Texas Tech Offers Augmented Reality for Visually Impaired**

January 2, 2019 - Software company Aira and Texas Tech University’s Student Disability Services (SDS) partnered to produce a virtual reality resource for people who are blind and visually impaired. This resource assists with maneuvering around the campus, and is a free smartphone app or can be accessed via Aira’s Horizon Smart Glasses. It works through the use of highly trained, remotely located agents who can offer real-time information about a person’s surroundings. The Aira Horizon Smart Glasses allow the agents to see the user’s surroundings through the camera located on the glasses. On the smartphone app version, the rear-facing camera is used to access visual information. On Texas Tech’s campus, this service is free of charge and aims to create a fully inclusive environment for individuals with vision disabilities. The director of the SDS, Larry Phillippe, asserts the importance of this technology on a college campus that is ever-growing and expanding. Phillippe highlights the usefulness of the Aira resource when navigating on certain parts of their campus, particularly areas under construction, closed off by barriers due to a special event, or sidewalk ramps blocked by ride-sharing scooters. The article illustrates Texas Tech’s commitment to inclusive environments for everyone, not just its students, by drawing attention to the fact that this resource is available to anyone on campus. [Source: News Release & Posted By Staff]

#### Additional Information:

[Texas Tech offers on-campus, augmented reality service for visually impaired](https://www.everythinglubbock.com/news/local-news/texas-tech-offers-on-campus-augmented-reality-service-for-visually-impaired/1683460159)

[<https://www.everythinglubbock.com/news/local-news/texas-tech-offers-on-campus-augmented-reality-service-for-visually-impaired/1683460159>]

**A “face-reading” App for People with Vision Loss**

January 2, 2019 – Huawei developed an app called Facing Emotions that enables people with visual impairments to gauge others’ moods by hearing their facial expressions. The Facing Emotions app works by accessing the phone’s rear-facing camera to scan the person’s face. During the scan, artificial intelligence-based algorithms locate key facial features, such as the eyes, nose, eyebrows, and mouth, and identify their relationship to each other. Based on the data retrieved from a person’s face, the app can discern seven basic emotions. Perhaps the most notable feature of the Facing Emotions app is its ability to work completely offline. New Atlas reports that the Facing Emotions app can be downloaded from the Google play store and offers a link to access this innovative technology. This Android app was created by Huawei and the Polish Blind Association. It is specifically for use on Huawei’s Mate 20 Pro smartphone. [Source: Ben Coxworth, NewsAtlas]

#### Additional Information:

[Huawei app lets blind users hear other people's emotions](%5Bhttps%3A/newatlas.com/huawei-facing-emotion-app/57846/)

[<https://newatlas.com/huawei-facing-emotion-app/57846/>]

**Google’s Newest Sensor**

January 1, 2019 - U.S. regulators approved Alphabet Inc’s, Google entity, request to operate in the 50 GHz frequency band power level. The request was made during the development of a radar-based motion sensing device. Google named this innovative technological design Project Soli. The Soli sensor collects motions in a three-dimensional space. The sensor allows touchless control of features and can complete a variety of functions. Soli users can press an invisible button between the thumb and index fingers or a virtual dial by rubbing a thumb against the index finger to operate a smartwatch, scroll through music or adjust the volume of a device. The Soli sensor can penetrate fabrics through its use of radar signal. This feature enables controls to work within objects like backpacks or pockets. But to test this new sensor, Google requested an FCC waiver to operate in the approximately 50 GHz frequency, which is currently higher than the permitted level of power. On Wednesday, Dec. 26th, the FCC granted the waiver to Google. The FCC also stipulated that users may operate the Soli sensor aboard aircraft as long as they comply with Federal Aviation Administration rules pertaining to portable electronic devices. Previously, Facebook Inc. protested Google’s initial request to operate in the 57-to 64-GHz frequency band power level because they argued it had the potential to interfere with other existing technologies. Eventually, the two companies came to a consensus. [Source: David Shepardson, Reuters]

#### Additional Information:

[Google wins U.S. approval for new radar-based motion sensor](https://www.reuters.com/article/us-google-sensor/google-wins-u-s-approval-for-radar-based-hand-motion-sensor-idUSKCN1OV1SH)

[<https://www.reuters.com/article/us-google-sensor/google-wins-u-s-approval-for-radar-based-hand-motion-sensor-idUSKCN1OV1SH>]

**The Power of Virtual Reality**

December 11, 2018 - The United States Department of Education launched a virtual reality program called, VOISS: Virtual Reality Opportunities to Implement Social Skills, to assist students with high functioning cognitive and developmental disabilities, like autism, with learning social skills and cues. The objective is to develop and refine behaviors in a controlled virtual environment. In doing so, it allows the students to learn at their own pace. VOISS contains a variety of virtual social settings for the students to learn how to converse, problem-solve, and respond. Some of the virtual environments include school hallways, lunchrooms, locker rooms, buses, and classrooms. VOISS will soon be launched at approximately seventeen (17) middle schools in the Midwest. This wireless technology is innovative because of its ability to provide students with an immersive experience. Researchers of virtual reality identify three variables that are important to recreate a sense of realism. They are Immersion, Place Illusion (Pi), and Plausibility Illusion (Psi). One researcher on this project, Dr. Ehrlich, describes immersion as the technology “driving the experience and includes the screen resolution and type of display.” The latter two variables both detail the scene viewed and the interaction within the scene.

To extend accessibility, the VOISS program is also available on computers and mobile devices. The intentionality behind designing the program to be used on a multitude of devices serves to ensure there is greater access to VOISS. Some students with high functioning autism do not care for things, or devices, on their face. According to the research team, a virtual reality system, like VOISS, is conducive to teaching students with autism because it reduces the amount of processing that must occur between stimuli and situation. The implications of this technology show great prospect for social development in students with disabilities that impact their social engagement. [Source: Emily Gera]

#### Additional Information:

# [How VR is being used to help children with learning disabilities, autism](https://www.thegazette.com/subject/news/health/vr-virtual-reality-healthcare-children-learning-disabilities-autism-20181211)

[<https://www.thegazette.com/subject/news/health/vr-virtual-reality-healthcare-children-learning-disabilities-autism-20181211>]

**Henry Viscardi Achievement Awards**

December 7, 2018 - In New York, The Viscardi Center, a non-profit organization that distributes a continuance of services across the spectrum for people with disabilities, held their annual Achievement Awards ceremony.  This annual ceremony highlighted leaders in the global disability community who, through advocacy efforts, provide services that educate and employ people with disabilities. The nominees span from around the world and represent Israel, Malawi, Pakistan, Switzerland, the United States, and Zimbabwe. The remarkable work of the honorees includes technology innovation, research and accessibility, activism and visibility, as well as increased civil rights and mobility. [Source: Global Accessibility News, Emily Demarest]

#### Additional Information:

# [2018 Henry Viscardi Achievement Awards Announced](http://globalaccessibilitynews.com/2018/12/07/2018-henry-viscardi-achievement-awards-announced/)

[<http://globalaccessibilitynews.com/2018/12/07/2018-henry-viscardi-achievement-awards-announced/>]

**The Evolution of Joysteer 3.0**

December 5, 2018 - To increase mobility for people with disabilities, the EU-funded project, the Joysteer was developed. The Joysteer is a steering system for autonomous vehicles that consists of man-machine interfaces (MMIs), safe electronic driving system, and a joystick. Prior issues with creating this emerging technology involved the driving systems’ inability to match the performance and feedback of traditional controls. Some of the technical problems include time lag and interference between commands. The latest version of this driving system, the Joysteer, has active and dynamic force feedback. It gives the driver full power over the vehicle. The Joysteer’s innovative technology also differs from earlier versions because of its safety features. The Joysteer 3.0 has two independent branches that assure full redundancy of steering and braking even if one branch fails from a technical error. The Joysteer 3.0 holds great potential as a tool to increase accessibility to transportation. [Source: Cordis]

#### Additional Information:

[Innovative steering system meets the needs of the disabled and autonomous driving](https://cordis.europa.eu/result/rcn/241242_en.html)

[<https://cordis.europa.eu/result/rcn/241242_en.html>]

**Disability Smart Awards Issued**

December 3, 2018 - The Business Disability Forum, located in the U.K, recognized the winners of their 2018 Disability-Smart Awards. The winners of this award made exemplary contributions to the community of people with disabilities. There were several categories for nominations which include: inclusive service provider of the year, positive cultural change of the year, workplace adjustments innovation of the year, influential business of the year, and technology initiative of the year. Some of the winners of these awards included West Midlands Police, Gatwick Airport, and Microsoft. [Source: Carly Hacon]

#### Additional Information:

# [Business Disability Forum announces winners of the Disability-Smart Awards](https://www.accessandmobilityprofessional.com/business-disability-forum-announces-winners-of-the-disability-smart-awards/)

[<https://www.accessandmobilityprofessional.com/business-disability-forum-announces-winners-of-the-disability-smart-awards/>]

**Honoring the Presidency & Legacy of George W. Bush**

December 3, 2018 - In the aftermath of President George H.W. Bush’s death, the country reflected on the lasting legacy of the 41st president. The highlighted legislation that shifted the nation was the Americans with Disabilities Act (ADA). In 1990, this act was signed into law and banned discrimination on the basis of disability in employment practices and in public places. This entails public buildings, public transportation, and other services. It also forbade workplace discrimination against workers and applicants with disabilities. Since the enactment of the ADA, accessibility and inclusion of people with disabilities has increased, but yes, more needs to be done. The nation can honor President George H.W. Bush’s legacy by continuing work to realize the spirit and intention of the ADA. [Source: Fox4KC, NPR]

#### Additional Information:

[KC woman born blind reflects on Bush’s impact on millions by signing Disabilities Act](https://fox4kc.com/2018/12/04/kc-woman-born-blind-reflects-on-bushs-impact-on-millions-by-signing-disabilities-act/)

[<https://fox4kc.com/2018/12/04/kc-woman-born-blind-reflects-on-bushs-impact-on-millions-by-signing-disabilities-act/>]

[Remembering George H.W. Bush, A Champion For People With Disabilities](https://www.npr.org/2018/12/03/672817727/remembering-george-h-w-bush-a-champion-for-people-with-disabilities)

[<https://www.npr.org/2018/12/03/672817727/remembering-george-h-w-bush-a-champion-for-people-with-disabilities>]

**International Day of Persons with Disabilities**

December 3, 2018 - Around the globe people, institutions, and organizations celebrated International Day of Persons with Disabilities. We have highlighted some of the campaigns, initiatives, and events that occurred in honor of this auspicious occasion. The theme of the day was “Empowering persons with disabilities and ensuring inclusiveness and equality.” There are more than one billion people with disabilities in the world, and with more than half of all these people living around or in urban environments, it is important that these cities are accessible. This year’s International Day of Persons with Disabilities, December 3rd,  began with a historical Global Compact on Inclusive and Accessible Cities in Germany. This Compact united leaders from Berlin, New York, Chicago and Amman to sign a document that recognized their commitment to inclusive and accessible cities. To operationalize this commitment into efforts, the Global Campaign on Inclusive and Accessible Cities developed an actionable framework that promotes best practices and administers guidelines for city leaders to utilize towards these goals.

Meanwhile, in New York, the United Nations Secretariat, UN Department of Management (UNDM), UN Office of Human Resources Management (UN OHRM), UN Office of Information Communication Technology (UN OICT), and Kessler Foundation hosted an event “Art of the Possible.” This event featured an open and transparent panel, in conversation-format, that discussed how to frame the challenges of inclusion. The panel also delved into how “integration” manifested for the community of people with disabilities. The “Art of the Possible” event also showcased a technology exhibition with various innovations to advance the lives of people with disabilities.

The Commissioner for Employment, Social Affairs, Skills, and Labour Mobility, Marianne Thyssen, reflected on the work that the European Union accomplished in 2018 in time for International Day of Persons with Disabilities. The European Accessibility Act was proposed, and the Commissioner worked towards its implementation in 2018. She also highlighted the progress that the UN and EU had made collectively towards advancing inclusivity such as accessible products to more than 80 million Europeans with disabilities.

In London, in time for the 2018 International Day of Persons with Disabilities, Heathrow Airport made substantial improvements. Last year, Heathrow Airport received a “poor” rating from the Civil Aviation Authority on accessibility for people with disabilities. Passengers with visual impairment will now have access to an app, called Aira, that provides on-demand assistance. The Aira app connects passengers directly to a live agent that will assist them in navigating the airport--from news regarding their flight to finding specific locations. Heathrow Airport also works closely with OmniServ to launch the ‘SignLive’ app. This extends accessibility to people who are Deaf. The app connects travelers to British Sign Language translators to assist in maneuvering the airport.

In Aotearoa, New Zealand, the Association of Social Workers acknowledged people with disabilities and continued their commitment to eradicating discrimination in all of its forms. The primary work of social workers in Aotearoa is to determine environmental influences, such as limited access to opportunities, that act as greater barriers to resources than the disability itself. On International Day of Persons with Disabilities, the Association focused on emphasizing the work remaining on improving the lives of people with disabilities and access to technology for all. [Sources: Global Accessibility News, Europa, Spruce Grove Examiner, International Airport Review, PR Web]

#### Additional Information:

[International Day of Persons with Disabilities – IDPD](http://globalaccessibilitynews.com/2018/11/28/international-day-of-persons-with-disabilities-idpd/)

[<http://globalaccessibilitynews.com/2018/11/28/international-day-of-persons-with-disabilities-idpd/>]

[Berlin Celebrates the International Day of Persons with Disabilities by Launching the Cities for All Compact and Campaign](http://globalaccessibilitynews.com/2018/12/03/berlin-celebrates-the-international-day-of-persons-with-disabilities-by-launching-the-cities-for-all-compact-and-campaign/)

[<http://globalaccessibilitynews.com/2018/12/03/berlin-celebrates-the-international-day-of-persons-with-disabilities-by-launching-the-cities-for-all-compact-and-campaign/>]

[Actor "Chill" Mitchell, NCIS New Orleans Keynotes, UN International Day of Persons with Disabilities Featuring UN Officials, US Ambassador, and Kessler Foundation](https://www.prweb.com/releases/actor_chill_mitchell_ncis_new_orleans_keynotes_un_international_day_of_persons_with_disabilities_featuring_un_officials_us_ambassador_and_kessler_foundation/prweb15961970.htm)

[<https://www.prweb.com/releases/actor_chill_mitchell_ncis_new_orleans_keynotes_un_international_day_of_persons_with_disabilities_featuring_un_officials_us_ambassador_and_kessler_foundation/prweb15961970.htm>]

[INTERNATIONAL DAY OF PERSONS WITH DISABILITIES: The Art of the Possible](https://www.prweb.com/releases/international_day_of_persons_with_disabilities_the_art_of_the_possible/prweb15960955.htm)

[<https://www.prweb.com/releases/international_day_of_persons_with_disabilities_the_art_of_the_possible/prweb15960955.htm>]

[ANZASW On the International Day of Disabled Persons](http://community.scoop.co.nz/2018/12/anzasw-on-the-international-day-of-disabled-persons/)

[<http://community.scoop.co.nz/2018/12/anzasw-on-the-international-day-of-disabled-persons/>]

[International Day of Persons with Disabilities 2018: Statement by Commissioner Thyssen](http://europa.eu/rapid/press-release_STATEMENT-18-6603_en.htm)

[<http://europa.eu/rapid/press-release_STATEMENT-18-6603_en.htm>]

[Berlin Celebrates the International Day of Persons with Disabilities by Launching the Cities for All Compact and Campaign](https://globenewswire.com/news-release/2018/11/29/1658726/0/en/Youth-Advocacy-Group-SoCal-Posse-Raises-Civil-Rights-Awareness-in-Observance-of-International-Day-of-People-with-Disabilities-with-Disability-History-Timeline-Exhibit-December-3.html)

[<https://globenewswire.com/news-release/2018/11/29/1658726/0/en/Youth-Advocacy-Group-SoCal-Posse-Raises-Civil-Rights-Awareness-in-Observance-of-International-Day-of-People-with-Disabilities-with-Disability-History-Timeline-Exhibit-December-3.html>]

[BIBLIOFILES: Libraries break down barriers to reading](https://www.sprucegroveexaminer.com/entertainment/local-arts/bibliofiles-libraries-break-down-barriers-to-reading)

[<https://www.sprucegroveexaminer.com/entertainment/local-arts/bibliofiles-libraries-break-down-barriers-to-reading>]

[Heathrow Airport launches new app for visually impaired passengers](https://www.internationalairportreview.com/news/78538/heathrow-app-visually-imparred/)

[<https://www.internationalairportreview.com/news/78538/heathrow-app-visually-imparred/>]

Upcoming Events

**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>]

**2019 CSUN Assistive Technology Conference**

The 34th *CSUN Assistive Technology Conference* (CSUN) will convene March 11 through March 19, 2019 in Anaheim, California. CSUN is the largest international conference addressing topics regarding people with disabilities and assistive and accessible technologies. Conference topics typically pertain to the domains of education, employment and workplace, entertainment, independent living, law and policy, and transportation.

#### Additional Information:

[Conference Web Page](http://www.csun.edu/cod/conference/2019/sessions/index.php/)

[<http://www.csun.edu/cod/conference/2019/sessions/index.php/>]

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

Save the datefor the 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).

**Association for Public Policy Analysis and Management (APPAM) 2019**

APPAM 2019 will convene July 29 through 30, 2019 in Barcelona, Spain. Co-hosted by [The Johns Hopkins University - University Pompeu Fabra (JHU-UPF) Public Policy Center](https://www.upf.edu/web/jhu-ppc), this year’s theme is “Public Policy in an Era of Rapid Change.” A global perspective will be taken at this conference with a particular emphasis on informing policies that address social inequalities.

#### Additional Information:

[APPAM 2019](http://www.appam.org/2019-international-conference/)

[<http://www.appam.org/2019-international-conference/>]

**Technology and Disability Policy Highlights,** Winter Issue: Dec. 2018 – Jan. 2019



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>]. 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].

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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.