

Technology and Disability Policy Highlights  

June 2018

Overview

In June, the Federal Communications Commission (FCC) announced the winners of its 2018 Chairman's Awards for Advancement in Accessibility (Chairman's AAA). The Chairman's AAA is part of an FCC program that seeks to identify "innovative developments that improve the experience of people with disabilities in telecommunications and technology." Winners for 2018 were recognized at an awards ceremony held in conjunction with the M-Enabling Summit in Arlington, Virginia. The FCC also released a proceeding *In the Matter of Misuse of Internet Protocol (IP) Captioned Telephone Service* [**CG Docket No. 13-24**]; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities* [**CG Docket No. 03-123**]. In the R&O and Declaratory Ruling sections, the FCC adopted rates for Internet Protocol captioned telephone service (IP CTS) that stand to save an estimated $399 million in just two years. They also adopted rules that allow for the use of automated speech-to-text technologies for the provision of captions on IP CTS.

In Wireless RERC news, we submitted reply comments to the FCC in response to their Public Notice inviting stakeholder input to *Refresh the Record on Facilitating Multimedia Content in Wireless Emergency Alerts (WEA)* [**PS Docket Nos. 15-91 and 15-94**].The Wireless RERC submission stated general agreement with comments that supported the inclusion of multimedia content in WEA messages. Despite sometimes having different rationales, many commenters indicated the importance of multimedia message content in motivating people to take appropriate protective actions, and/or advancing accessibility of WEAs to people with disabilities.

This issue also includes news about WCAG 2.1 guidelines, accessible public transportation, the SpeakSee app for people with hearing disabilities, improvement in 911 location accuracy, smartwatch integration with campus services, and more.

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Regulatory Activities

# FCC Recognizes Four Awardees in its annual Chairman's Awards for Advancement in Accessibility

June 13, 2018 - In a press release, the FCC listed the winners of its 2018 Chairman's Awards for Advancement in Accessibility (Chairman's AAA). The Chairman's AAA is part of an FCC program that seeks to identify "innovative developments that improve the experience of people with disabilities in telecommunications and technology." Winners for 2018 were recognized at an awards ceremony held in conjunction with the M-Enabling Summit in Arlington, Virginia. The 2018 Chairman's AAA winners included a wide range of private and public sector initiatives. Projects were selected on criteria ranging from project uniqueness and innovation; affordability and availability; and the anticipated impacts of the technology on populations with and without disabilities. This year's winners are:

* The Orbit Reader 20, a refreshable braille display that can reduce the amount of time required for note taking while being less expensive to produce than existing alternatives. It features a refreshable display of 20 braille cells with pins that can represent any 6 or 8 dot braille code.
* Captioning and Description Editing Tool (CADET): The National Center for Accessible Media at WGBH (NCAM) developed CADET. The caption-authoring software has been used on WGBH, a public radio station located in Boston, Massachusetts and the National Center on Accessible Media as a low-cost solution for closed captioning and video descriptions. The free software is available for laptops and desktops to enable easier captioning and audio descriptions of video content.
* The IBM AbilityLab Content Clarifier is a software platform that uses “artificial intelligence (AI) algorithms, machine learning models, and natural language processing to simplify, summarize, and augment digital content to increase comprehension for people with cognitive disabilities, the aging population, or those learning English as a second language." The software replaces complex words and informal speech patterns (e.g., colloquialisms, idioms), with easier to understand alternatives. It can also summarize content for quick reading later. According to the development team, the software could theoretically be implemented into any software on a variety of platforms.
* SeeingAI: A free Microsoft app created to help users with visual impairments more easily navigate the world around them (See <http://www.wirelessrerc.org/microsofts-seeing-ai-app-helps-users-visual-impairments-identify-currency-handwriting-and-other>). With 100,000 downloads to date, the app provides audio feedback to users in a variety of applications, such as currency recognition, clothing color, and now, handwriting recognition. The app is available in 35 countries and allows users to customize the speech rate and other features to improve accessibility.

[Source: FCC]

Additional Information:

[Chairman's Awards for Advancements in Accessibility](https://www.fcc.gov/general/chairmans-awards-advancements-accessibility)

[<https://www.fcc.gov/general/chairmans-awards-advancements-accessibility>]

# Internet Protocol Captioned Telephone Service Reform

June 8, 2018 – The FCC released a proceeding *In the Matter of Misuse of Internet Protocol (IP) Captioned Telephone Service* [**CG Docket No. 13-24**]; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities* [**CG Docket No. 03-123**]. The proceedings include a Report and Order (R&O), Declaratory Ruling, Further Notice of Proposed Rulemaking (NPRM), and a Notice of Inquiry (NOI). In the R&O and Declaratory Ruling sections, the FCC adopted rates for Internet Protocol captioned telephone service that stands to save an estimated $399 million in just two years. They also adopted rules that allow for the use of automated speech to text technologies for the provision of captions on IP CTS. These changes are intended to improve the sustainability of IP CTS and the Telecommunications Relay Service Fund. The new rules do not apply to wireless IP CTS.

The FNPRM section seeks stakeholder input on additional ways to sustain the program and reduce waste. For example, individual hearing assessments of users to ensure they require the use IP CTS is proposed: “assessments of IP CTS user need must be specifically focused on the consumer’s ability to hear and understand speech over the telephone and on whether the consumer’s communications needs can be met by other assistive technologies.” The NOI portion of the proceeding is focused on quality assessment measures. Comment dates for the NPRM and NOI will be announced when the proceeding is published in the Federal Register. [Source: FCC]

Additional Information:

[Report and Order, Declaratory Ruling, Further Notice of Proposed Rulemaking, and Notice of Inquiry](https://www.fcc.gov/document/ip-cts-modernization-and-reform)

Report and Order: [Docx Opens a New Window.](https://docs.fcc.gov/public/attachments/FCC-18-79A1.docx) -- [Pdf Opens a New Window.](https://docs.fcc.gov/public/attachments/FCC-18-79A1.pdf) -- [Txt Opens a New Window.](https://docs.fcc.gov/public/attachments/FCC-18-79A1.txt)

[News Release about](https://www.fcc.gov/document/fcc-acts-reform-internet-protocol-captioned-telephone-service): [Docx Opens a New Window. --](https://docs.fcc.gov/public/attachments/DOC-351394A1.docx) [Pdf Opens a New Window.](https://docs.fcc.gov/public/attachments/DOC-351394A1.pdf) [Txt](https://docs.fcc.gov/public/attachments/DOC-351394A1.txt)

# New Guidelines for Making Web Content More Accessible for All

June 5, 2018 – The Web Content Accessibility Guidelines (WCAG), an internationally established set of guidelines for accessibility of content on the Internet, have released version 2.1 of their guidelines to be implemented in summer 2018. These guidelines are not restricted to people with disabilities, as they also ensure greater accessibility of all web content on a variety of platforms (e.g., desktop, mobile phones, tablets). WCAG is maintained by the World Wide Web Consortium (W3C), which published the previous guidelines (2.0) in 2008. WCAG 2.0 was notable because it codified twelve guidelines divided into four main categories: perceivable, operable, understandable, and robust. The new WCAG 2.1 guidelines are backward compatible with the 2.0 meaning that all previous guidelines will remain in effect. While the guidelines are not regulation, in 2017, WCAG 2.0 was adopted by the U.S. Department of Justice as the yardstick for measuring Section 508 compliance. The new accessibility guidelines in 2.1 include, among other features:

* Identify common purpose (wherein a piece of code must be able to tell the user what is expected to be input by the user).
* Identify purpose (wherein interface components such as icons and certain sections must be identified programmatically, for example, so that a user can understand what a button on a website does and what its purpose is).
* Reflow (wherein websites must have a responsive design that allows them to remain accessible when viewed on different platforms).
* Non-text contrast (wherein high contrast must extend from the web page to text, to text on interface components as well as colors used in non-text content).

[Source: Patrick Lauke, The Paciello Group]

Additional Information:

[Web Content Accessibility Guidelines (WCAG) 2.1](https://developer.paciellogroup.com/blog/2018/06/web-content-accessibility-guidelines-wcag-2-1/)

[<https://developer.paciellogroup.com/blog/2018/06/web-content-accessibility-guidelines-wcag-2-1/>]

Wireless RERC Updates

# Wireless RERC on the Record: Multimedia Content in WEA messages

June 11, 2018 – The Wireless RERC submitted reply comments to the FCC in response to their Public Notice inviting stakeholder input to *Refresh the Record on Facilitating Multimedia Content in Wireless Emergency Alerts (WEA)* [**PS Docket Nos. 15-91 and 15-94**].The Wireless RERC is in general agreement with comments that supported the inclusion of multimedia content in WEA messages. Despite sometimes having different rationales, many commenters indicated the importance of multimedia message content in motivating people to take appropriate protective actions, and/or advancing accessibility of WEAs to people with disabilities.The Wireless RERC reply comments acknowledged the remarks of AT&T and CTIA that discussed the technical difficulty and level of effort and resources it would require of wireless industry stakeholders to realize embedded multimedia content. In our reply comments, we urged wireless stakeholders to continue to embrace the changing expectations of public safety officials and the public with regards to an expanded suite of WEA capabilities. The most recent updates allowing for increased character length and the inclusion of URLs are expected to have a positive impact on the accessibility of the message and by extension behavioral response. Adding embedded multimedia content would further enhance WEA messages for people with disabilities and language differences, allowing for multiple cognitive and sensory pathways (visual, auditory, and linguistic) to be automatically engaged for more efficient information processing and reaction.

The Wireless RERC also supported comments made by the Consumer Groups, California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), and Gallaudet University RERC on Technology for the Deaf and Hard of Hearing (joint filing) asserting that multimedia WEA messages would be particularly beneficial to people whose primary language is American Sign Language (ASL). In a recently published journal article, *American Sign Language & Emergency Alerts: The Relationship between Language, Disability, and Accessible Emergency Messaging*,[[1]](#footnote-1) extensive reasoning is provided as to why the provision of ASL-translated emergency messages is critical. In sum, WEA messages delivered as an ASL video would allow for immediate and independent access to the message content.

Though there are technical hurdles to address (network and device-based), the Wireless RERC is optimistic that industry, government, academic, and consumer stakeholders will together, develop the technical, policy and practice solutions that will bring accessible multimedia WEA content to fruition.

Additional Information:

[Read the Wireless RERC’s Comments](http://www.wirelessrerc.gatech.edu/sites/default/files/wireless_rerc_reply_comments_mutlimedia_content_in_wea_messages.pdf)

[<http://www.wirelessrerc.gatech.edu/sites/default/files/wireless_rerc_reply_comments_mutlimedia_content_in_wea_messages.pdf>]

[wireless\_rerc\_reply\_comments\_mutlimedia\_content\_in\_wea\_messages\_web.docx](http://www.wirelessrerc.gatech.edu/sites/default/files/wireless_rerc_reply_comments_mutlimedia_content_in_wea_messages_web.docx)

# 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.

Your responses will:

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

Take the survey online at <http://bit.ly/2018UserNeedsSurvey>

Or

Scan the QR Code below to open the survey on your mobile device:



To take the survey by telephone contact:

Salimah LaForce

404-894-8297

Other Items of Interest

# U.K. Government Funds Seven Projects to Increase Innovation and Accessibility of Public Transportation

June 26, 2018 – As part of an innovation competition organized by the United Kingdom’s Rail Safety and Standards Board (RSSB) and the Department for Transport’s efforts to improve public transit accessibility for all passengers, seven projects have received a share of £600,000 (approximately $789,000). According to a statement by Transport Accessibility Minister Nusrat Ghani, “I am determined to make sure that our railways are accessible to everyone, and that we remove any barriers faced by people with a disability. Everyone deserves the right to travel independently and with confidence. I am delighted that these innovative projects have been picked to improve people’s journeys, and look forward to seeing how they benefit passengers in the years to come.” The winning projects are:

* Accessibility Evaluation Survey for Stations (ACCESS): a software that assists accessibility technicians in identifying and managing issues.
* Less Visible Impairments (LVIS): a study that will be conducted to increase awareness of “hidden” disabilities, such as Alzheimer’s and dementia.
* Rail4All: an app which will assist transportation personnel in receiving and responding to travel requests from passengers with disabilities.
* Accessible Journey Pocket Assistant: an electronic travel planner that gives passengers personalized recommendations for their trip.
* Nodality (navigating transport interchange): a website that will provide passengers with disabilities and their care-takers with exact information on the accessibility features of specific stations.
* Signly: an app which was developed to assist passengers who use sign language as their primary form of communication.
* Aubin: an app which was developed to assist passengers with autism that personalizes their trip according to their stated preferences, in an attempt to reduce the anxiety many people associate with travel.

The projects represent some of the U.K. government’s most recent efforts at using novel technologies to increase accessibility and transportation options for all citizens. Mark Applin, co-founder of Signly, stated “The Signly team is delighted the RSSB have seen the possibilities to improve passenger experience for Deaf passengers who use British Sign Language. The grant funding affords the opportunity to meet Deaf passengers and rail employees and develop simple tools that can make a difference day in, day out.” Mark Phillips, chief executive of RSSB, said, “These ideas will help achieve our aim of improving overall access to the railways for disabled people and contribute to a better, safer railway. We thank everybody who submitted proposals to the competition and look forward to supporting the winning projects.” [Source: Joe Peskett, Access & Mobility Professional]

Additional Information:

[Seven projects win government backing to boost accessibility on railways](http://www.accessandmobilityprofessional.com/seven-projects-win-government-backing-boost-accessibility-railways/)

[<http://www.accessandmobilityprofessional.com/seven-projects-win-government-backing-boost-accessibility-railways/>]

# SpeakSee Transcribes Audio for Users with Hearing Impairments

June 18, 2018 – In a news report on New Atlas, SpeakSee, a device that can provide transcripts of conversations using speech-to-text software was announced. Developed by Dutch entrepreneurs Jari Hazelebach and Marcel van der Ven, the SpeakSee consists of a small white device that can clip onto an article of someone’s clothing which using up to nine microphones, can transcribe speech to the user’s smartphone. The microphone(s) use additional sensors in the device to isolate speech from background noise and can differentiate amongst speakers. The audio data is first transmitted via Wi-Fi to the device’s docking station that processes the speech into text and then relays the transcription to the user’s smartphone. The Speaksee app further color codes speakers to indicate different speakers and the transcripts can be saved and searched using keyword queries. Further, the device supports over 120 languages and has a battery life of two to four hours when not in the docking station. The device is currently available to fund on Indiegogo. [Source: Ben Coxworth, New Atlas]

Additional Information:

[SpeakSee uses mics and app to get deaf people in on the conversation](https://newatlas.com/speaksee-deaf-speech-to-text/55083/)

[<https://newatlas.com/speaksee-deaf-speech-to-text/55083/> ]

**Faster Localization Technology For 911 Calls from iOS Devices**

June 18, 2018 – In a news bulletin shared on their website, Apple announced that the upcoming revision to its iPhone/iPad/iPod software, iOS 12, will include functionality to automatically share more detailed data on the caller’s exact location with emergency responders during a crisis event. This will allow responders to reach people faster and more efficiently. According to Apple, 80% of 911 calls currently come from mobile devices, but that the underlying “landline-era infrastructure” can delay emergency response rates. To address this need, Apple created the Hybridized Emergency Location (HELO) software that enables improved localization sharing using on-device sensors such as GPS and examining Wi-Fi Access Points. In addition to HELO, the company announced it would utilize emergency company RapidSOS’s “Internet Protocol-based data pipeline to quickly and securely share HELO location data with 911 centers.” RapidSOS CEO, Michael Martin said of this collaboration, “We are excited to work with Apple to provide first responders a new path for accurate, device-based caller location using transformative Next Generation 911 technology.”

This feature will become available for free this fall with the launch of iOS 12 on a range of iPhone and iPad devices. RapidSOS detailed in a blog how this collaboration will help first responders get to callers in emergency situations faster than ever before. According to the report, the technology behind RapidSOS is “the NG911 Clearinghouse, a NENA i3 compliant Location Information Server (LIS) and Additional Data Repository (ADR) that integrates into most major 9-1-1 call-taking, dispatching, and mapping systems. RapidSOS offers this service **at no cost to public safety**, and it can be accessed by any authorized 9-1-1 center in the United States. Public safety agencies across 35 states have already completed the integration and are receiving life-saving data from the NG911 Clearinghouse.”

Apple CEO Tim Cook, a longtime advocate for technologies that increase accessibility and security stated, “Communities rely on 911 centers in an emergency, and we believe they should have the best available technology at their disposal. When every moment counts, these tools will help first responders reach our customers when they most need assistance.” The report notes that in keeping with Apple’s privacy policies, location data will only be shared with emergency responders during crisis events. The FCC has mandated that carriers be able to locate callers within 50 meters with at least 80% accuracy by 2021, which can be technologically challenging due to the high density of mobile devices in city environments.

Former FCC Chairman (2013-2017) Tom Wheeler said of this initiative, “This new functionality is an example of how companies and first responders can use technology to dramatically improve public safety. Lives will be saved thanks to this effort by Apple and RapidSOS.” Dennis Patrick, former FCC Chairman (1987-1989) wrote, “Helping 911 services quickly and accurately assess caller location has been a major issue since my time at the FCC. This advancement from Apple and RapidSOS will be transformative for emergency response in the United States.”

iOS 12 is expected to debut this fall for free. All iOS 11 capable devices will be able to upgrade to iOS 12. The following devices are iOS 11/12 compatible:

* iPhone 5S, 6, 6 Plus, 6S, 6S Plus, SE, 7, 7 Plus, 8, 8 Plus and iPhone X.
* iPad Air, Air 2 and 5th-gen iPad.
* iPad Mini 2, 3, and 4.
* All iPad Pros.
* 6th-gen iPod Touch.

[Sources: Apple Newsroom; Reinhard Ekl on Info RapidSOS Blog]

Additional Information:

[Apple’s iOS 12 securely and automatically shares emergency location with 911](https://www.apple.com/newsroom/2018/06/apple-ios-12-securely-and-automatically-shares-emergency-location-with-911/)

[<https://www.apple.com/newsroom/2018/06/apple-ios-12-securely-and-automatically-shares-emergency-location-with-911/>]

[Bringing Life-Saving Location from Apple Devices to Your Communications Center](https://info.rapidsos.com/blog/bringing-apple-device-location-to-911?utm_source=publicsafetysmarbrief&utm_medium=email&utm_campaign=apple-announcement)

[<https://info.rapidsos.com/blog/bringing-apple-device-location-to-911?utm_source=publicsafetysmarbrief&utm_medium=email&utm_campaign=apple-announcement>]

# Voice-Activated Web Browser for Users with Visual Impairments

June 13, 2018 - Mozilla, the company behind the Firefox web-browser, have announced that they have begun development of Scout, a new browser that will allow use of voice commands to navigate the Internet.  A statement on CNET indicated, “With the Scout app, we start to explore browsing and consuming content with voice. A sample command shows how it might work: "Hey Scout, read me the article about polar bears.” Mozilla believes this voice-activated browser will help users with vision impairments navigate more easily and multitask with greater efficiency. As part of Mozilla’s official mission statement, the company wishes to “foster an internet that includes all the peoples of the earth -- where a person's demographic characteristics do not determine their online access, opportunities or quality of experience." Scout is still in the early stages of development and Mozilla would not comment on when it would be available for release. [Source: Stephen Stankland, CNET]

Additional Information:

[Firefox makers working on voice-controlled web browser called Scout](https://www.cnet.com/news/mozilla-working-on-scout-a-voice-controlled-web-browser-project/)

[<https://www.cnet.com/news/mozilla-working-on-scout-a-voice-controlled-web-browser-project>]

# Nomensa Details How the Web Content Accessibility Guidelines 2.1 Update Will Increase Accessibility of Online Content for All Users

June 13, 2018 – We reported this month on the Web Content Accessibility Guidelines (WCAG) 2.1 update intended to ensure greater accessibility of all web content on a variety of platforms. A recent article on the [Nomensa Humanizing Technology Blog](https://www.nomensa.com/blog/) further details the updated guidelines structure and their impact on users with disabilities. The 2.1 guidelines are based primarily on three task forces or sub-groups: cognitive, low vision and mobile. The Cognitive and Learning Disabilities task force includes guidelines on how to code common input purposes for information such as names, emails, and addresses. Also, a “Timeouts” feature is being implemented where users will be informed if they will be signed out of a page or program due to inactivity. The Low Vision sub-group provides guidance for mobile and non-mobile navigation, including guidelines for text-spacing, text-resizing and zooming in and out of content. The Mobile sub-group covers updated guidelines for input methods such as text and voice, as well as on pointer gestures and motion actuation (e.g., if a hand tremor accidentally activates a prompt). [Source: Nomensa]

Additional Information:

[Web Content Accessibility Guidelines (WCAG) 2.1 - Recommended](https://www.nomensa.com/blog/2018/wcag-21-accessibility-recommended)

[<https://www.nomensa.com/blog/2018/wcag-21-accessibility-recommended>]

# Disability-Inclusive Disaster Risk Management

June 7, 2018 – Members from the Global Facility for Disaster Reduction and Recovery (GFDRR) group and the Disability and Development team of the World Bank have been working together to create a more inclusive Disaster Risk Management (DRM) action plan, with a focus on the “engagement and empowerment of persons with disabilities.” People with disabilities are not a homogenous group, and with an estimated one billion people worldwide living with one or more disabilities, the need for a comprehensive, inclusive DRM is great.

The results of this collaboration include a report and policy brief that detail five key actions for governments, their partners, and stakeholders. These key actions, verbatim, are:

1. Include persons with disabilities as valued stakeholders in disaster risk management activities.
2. Help remove barriers to the full participation of persons with disabilities.
3. Increase awareness among governments and their partners of the safety and security needs of persons with disabilities.
4. Collect data that is disaggregated by disability.
5. Ensure that new construction, rehabilitation, and reconstruction are accessible to persons with disabilities.

These reports add to the growing list of literature on disability inclusive DRM, such as the 2030 Agenda for Sustainable Development, the Convention on the Rights of Persons with Disabilities (CRPD), the World Humanitarian Summit, Paris Climate Change Agreement, and Habitat III and the New Urban Agenda. The report identifies that in addition to physical accessibility barriers in many countries, there are also communication barriers. According to the report, more work will be needed to “to ensure locally appropriate standards are developed and implemented, as well as international organizations and nongovernmental organizations (NGOs) with expertise on accessibility standards.” These include warning systems that do not reach all citizens promptly or are presented in formats that are not accessible (e.g., only audible methods, lack of a text-crawl in emergency televised communications).

GFDRR and the World Bank will continue their work “to ensure that disability-inclusive DRM considers the needs of the vulnerable in not only planning of the built environment but to also consider their needs first in the occurrence of a natural disaster or other need for evacuation.” [Sources: Global Accessibility News; Global Facility for Disaster Reduction and Recovery]

Additional Information:

[Now Available – GFDRR Publications on Disability-inclusive DRM](http://globalaccessibilitynews.com/2018/06/07/now-available-gfdrr-publications-on-disability-inclusive-drm/)

[<http://www.wirelessrerc.gatech.edu/global-facility-disaster-reduction-and-recovery-gfdrr-release-policy-brief-and-report-disability>]

[Disability Inclusion in Disaster Risk Management](https://www.gfdrr.org/en/publication/disability-inclusion-disaster-risk-management-0)

[<https://www.gfdrr.org/en/publication/disability-inclusion-disaster-risk-management-0>]

[Five Actions for Disability-Inclusive Disaster Risk Management](https://www.gfdrr.org/en/publication/five-actions-disability-inclusive-disaster-risk-management)

[<https://www.gfdrr.org/en/publication/five-actions-disability-inclusive-disaster-risk-management>]

# Smartwatch Allows Students to Use University Services

June 6, 2018 – At this week’s annual Worldwide Developers Conference (WWDC), Apple announced that version 5.0 of its Apple Watch software (WatchOS) will allow students at select universities to use their device to access university services, including the dining halls, gyms, and dorms. Participating schools include Duke University, University of Alabama, University of Oklahoma, and Johns Hopkins. The functionality will also be available on iPhones from the 5S and forward.

While the integration of student ID cards into the Apple Watch increases convenience, for some students with disabilities this feature can also increase independence. Researchers at the Wireless RERC recently conducted a series of focus groups on the use of “new communications technologies,” such as wearables, by people with disabilities. We learned that consumers with limited dexterity or impaired hand function, such as people with spinal cord injury or multiple sclerosis, have indicated the potential usefulness of wearables in their own lives. For example, the ability to use near-field communication (NFC) for payments often simplifies what is a complex task for many users who find handling cash or cards to be difficult. Participants also related that use of wearables-enabled payment apps also make them feel safer and more secure. Hopefully, more schools adopt wearables and NFC payment systems as a method for making the campus environment and access to services more accessible and inclusive.

The WatchOS 5 update will be available for free this fall for the Apple Watch Series 1 and more recent models. [Sources: Dian Schaffhauser, Campus Technology; Wireless RERC].

Additional Information:

[Newest Apple Watch to Serve as Student ID](https://campustechnology.com/articles/2018/06/06/newest-apple-watch-to-serve-as-student-id.aspx?s=ct_nu_070618)

[<https://campustechnology.com/articles/2018/06/06/newest-apple-watch-to-serve-as-student-id.aspx?s=ct_nu_070618>]

**In case you missed it – Vail Reports Results of End-to-End WEA Test**

# May 18, 2018 – Last month, Vail Public Safety Communications Center (VPSCC) released a report about the Wireless Emergency Alert (WEA) test conducted on May 2, 2018. The test was end-to-end, meaning that cell phones in the target area would receive a test message that read “EC EMO: TEST emergency message. Go to ec-e.org to provide feedback. No other action needed.” The purpose of this test was manifold and included evaluation of:

# Geolocation capabilities, specifically overreaching the target area.

* Whether the URL functioned as a clickable link.
* Awareness of WEA.
* WEA’s performance in a mountainous area.
* Use of Everbridge to send the message.

# With the public receiving the message, VPSCC followed-up with a short survey to measure the reach and speed of the message, providers and operating system prevalence amongst respondents, and awareness level of Vail’s subscriber-based emergency notification system. Survey and test results indicated the not all cell phones within the targeted area received the test message, and conversely, some cell phones outlying the target area did receive the test message. Travelers that entered the target area before the test message expired received the message. However, some respondents indicated that they had issues retrieving the message after acknowledging it (e.g., tapping the touchscreen), “causing confusion because they couldn’t get back to comprehend the message.” Additionally, the test found that some service providers split the message, resulting in the splitting of the URL rendering it un-clickable. As such, VPSCC recommended that hyphens not be used in URLs. They also recommended drawing the target area with the polygon tool as opposed to the “free-form” tool to reduce the number of geopoints created. The full report including all findings, recommendations, and associated survey tool and data can be accessed using the link below.

Additional Information:

[Report - Vail Public Safety Communications Wireless Emergency Alert (WEA) Test](http://WWW.WIRELESSRERC.GATECH.EDU/SITES/DEFAULT/FILES/FINAL_MAY_2018_WEA_TEST_RESULTS_VAIL.PDF)

[<http://www.wirelessrerc.gatech.edu/sites/default/files/final_may_2018_wea_test_results_vail.pdf>]

Upcoming Events

**43rd Annual Natural Hazards Research and Applications Workshop**

The 2018 Natural Hazards Workshop will convene from July 8 to July 11, 2018, in Broomfield, CO. This year’s theme, [*Twenty Questions: Looking for Answers to Reduce Disaster Risk*](https://hazards.colorado.edu/workshop/2018/theme), will focus on critical areas that need addressing to reduce the human toll of disasters. Some session titles include [Moonshots: Ideas to Change the World of Hazards and Disasters](https://hazards.colorado.edu/workshop/2018/session/moonshots-ideas-to-change-the-world-of-hazards-and-disasters), [Cultural Competence: Initiatives to Reduce Disaster Vulnerability](https://hazards.colorado.edu/workshop/2018/session/cultural-competence-initiatives-to-reduce-disaster-vulnerability), [Root Causes: Social Inequality and Vulnerability in Disaster](https://hazards.colorado.edu/workshop/2018/session/root-causes-social-inequality-and-vulnerability-in-disaster), [Learning Our Lessons: Integrating Disaster Research and Practice](https://hazards.colorado.edu/workshop/2018/session/learning-our-lessons-integrating-disaster-research-and-practice), and many more.

Additional Information:

[Natural Hazards Workshop Web page](https://hazards.colorado.edu/workshop/2018)

[<https://hazards.colorado.edu/workshop/2018>]

**RESNA's 2018 Annual Conference**

RESNA's 2018 Annual Conference will convene from July 11 to 15, 2018 in Arlington, VA. The conference will have presentations on assistive technology trends in cognitive and sensory impairments, computer applications and communications, emerging technology, job and environmental accommodations, public policy and advocacy, among others. In addition to the presentations, there will be an exhibit hall and networking opportunities.

Additional Information:

[2018 RESNA Conference Web page](https://www.resna.org/news-events/annual-meeting/resna-2018-annual-conference)

[<https://www.resna.org/news-events/annual-meeting/resna-2018-annual-conference>]

**Technology and Disability Policy Highlights,** June 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 Kenneth Goughnour [kenneth@cacp.gatech.edu].

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1. Bennett, D., LaForce, S., Touzet, C., & Chiodo, K. (2018). American Sign Language & Emergency Alerts: The Relationship between Language, Disability, and Accessible Emergency Messaging. *International Journal of Mass Emergencies and Disasters, 36*(1), 71-87. [↑](#footnote-ref-1)