

Technology and Disability Policy Highlights

February 2017

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# Overview

In February, the Federal Communication Commission (FCC) began accepting nominations for the 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.” Send nominations to [chairmansaaa@fcc.gov](mailto:chairmansaaa@fcc.gov).

In Wireless RERC news, Young-Mi Choi, Wireless RERC project director and assistant professor in the School of Industrial Design at Georgia Tech, received the 2017 Georgia Tech Center for Teaching and Learning (CTL), Class of 1940 Course Survey Teaching Effectiveness Award for her excellent instruction of College of Design’s ID Studio II class. Students have an opportunity to engage in evidenced based research by examining multiple roles played by users, industrial designers, engineers, and marketers during the process of creating new products and assistive technologies. Like the students, the TDPH editors also the many perspectives, policies, and technologies related to accessible and assistive technologies. In our annual review of the TDPH content, we awed at the wide range of disability access issues that were covered in 2016. The keywords that appeared the most include Disability, Wireless, Accessibility, Communications, FCC, Inclusive, Information, and Community. Not surprisingly, “hot” topics were the provision of accessible information, wireless technology, emerging technology, the community and public impact, research, and policy. See the Wireless RERC Updates section or the full story.

This issue also includes news about artificial intelligence, virtual reality, augmentative and alternative communications (AAC) apps, and the [LeadingAge Hackathon](https://www.eventbrite.com/e/leadingage-ga-hackfest-creating-innovative-technology-solutions-for-aging-tickets-31738916955?utm-medium=discovery&utm-campaign=social&utm-content=attendeeshare&aff=esfb&utm-source=fb&utm-term=listing%20).

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# Regulatory Activities

**FCC Accepting Nominations for the Chairman’s Awards for Advancement in Accessibility**

February 7, 2017 – The FCC is accepting nominations for the 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 April 13, 2017, 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. Send nominations to [chairmansaaa@fcc.gov](mailto:chairmansaaa@fcc.gov). Selected nominees will be announced at the M-Enabling Conference, in Arlington, Virginia, on June 13, 2017. A ceremony for the winners will be held at the FCC, the date of which is still to be determined.

#### Additional Information:

[Public Notice - Chairman's AAA](https://www.fcc.gov/document/nominees-sought-chairmans-awards-advancement-accessibility)

[<https://www.fcc.gov/document/nominees-sought-chairmans-awards-advancement-accessibility>]

# Wireless RERC Updates

**Young Mi Choi Wins Excellence in Design Instruction Award**

February 2017 - Young-Mi Choi, Wireless RERC project director and assistant professor in the School of Industrial Design (ID) at the Georgia Institute of Technology (Georgia Tech), received the 2017 Georgia Tech Center for Teaching and Learning (CTL), Class of 1940 Course Survey Teaching Effectiveness Award for her excellent instruction of College of Design’s ID Studio II class.  Undergraduate students in this class focus on product development utilizing human-centered design.  Students have an opportunity to engage in evidenced based research by examining multiple roles played by users, industrial designers, engineers, and marketers during the process of creating new products and assistive technologies.  Primarily, Dr. Choi’s research focuses on people who use wheelchairs and users who are visually impaired. Dr. Choi has received other awards for research and teaching excellence including the 2016 National Science Foundation ADVANCE Program Women of Excellence Award, 2015 Outstanding Faculty Award, and the 2012 Georgia Tech Center for the Enhancement of Teaching and Learning (CETL), Class of 1934 Teaching Effectiveness Award.  To read more about this award and Dr. Choi’s research visit the following links.

#### Additional Information:

## [College of Design News - College of Design Faculty Win Students' Opinion](https://design.gatech.edu/student-opinion-design-professors)

[<https://design.gatech.edu/student-opinion-design-professors>]

[Dr. Young Mi Choi Bio](https://id.gatech.edu/people/young-mi-choi)

[<https://id.gatech.edu/people/young-mi-choi>]

**Top 25 TDPH Topics of 2016**

**Image shows the top 25 key words with those that appeared with greater frequency being larger than words that appeared less frequently.  In descending order, the words are:
Disabilities 
Technology
Wireless
Information
FCC
Accessibility
RERC
Communications
Emergency
Research
Services
National
Public
Policy
Future
Online
Community 
Inclusive
Devices 
System 
CACP
App
EAS
Development
Alert(s)
**

Technology and Disability Policy Highlights (TDPH) editors covered a wide range of disability access issues in 2016. The graphic word cloud above depicts the twenty-five most used keywords in 2016. The keywords that appeared the most include Disability, Wireless, Accessibility, Communications, FCC, Inclusive, Information, and Community. Not surprisingly, “hot” topics were the provision of accessible information, wireless technology, emerging technology, the community and public impact, research, and policy. For over a decade there has been a push to integrate new communication technologies for people with hearing loss into the 911 system. In 2016, major steps were taken to replace the legacy text telephone communications (TTY) system, in favor for text transmission over modern Internet Protocol (IP) networks. With 2016 marking the ten year anniversary of the signing of the WARN Act calling for the establishment of an accessible, flexible, and technologically advanced National Alert System, we are pleased to see FCC actions realizing the goals outlined in the legislation. To improve access to programs and services, the Wireless RERC recommended addressing fundamental issues of awareness and accessible formats. Other policy content, not related to emergency information, addressed employment, broadband access, hearing-aid compatibility, accessible transportation, and inclusive education, to name a few. The FCC kept busy with efforts to improve technology and programmatic access. In addition to seeking public input on their compliance with Section 504 of the Rehabilitation Act of 1973, other major FCC decisions included new rules enhancing Wireless Emergency Alerts (WEAs), additional Emergency Alert System (EAS) codes, and revised hearing aid compatibility (HAC) rules to ensure that people with hearing loss have quality access to wireless devices/services.

Throughout 2016, our TDPH newsletters addressed among other things, Internet of Things' potential to advance the social inclusion and independent living of people with disabilities, and improve the dissemination of emergency information. Looking to an inclusive future, not only were research and policy agenda items identified, but also challenges and recommendations on how to reach a future of inclusiveness. The TDPH reaches 833 subscribers directly via email and extends to a much larger audience through social media.  We engage over 896 members in our LinkedIn Group ([ATPG](https://www.linkedin.com/groups?gid=1854667&trk=my_groups-b-grp-v)), 933 followers on Twitter ([@CACPGT\_wRERC](https://twitter.com/CACPGT_wRERC)), and 331 fans on Facebook ([WirelessRERC](https://www.facebook.com/WirelessRERC)). If you haven’t already, please join us on social media. None of this would be possible without you, our readers. You may receive this newsletter directly as a monthly digest, or as-it-happens updates on social media.  Either way, we appreciate your being a part of our network.  As always…thanks for reading and sharing!

# Other Items of Interest

**Artificial Intelligence and Veterans Accessibility to Health IT**

February 21, 2017 - Nuance and Epic are working together to advance the use of technology in healthcare.  Nuance’s artificial intelligence (AI) will be paired with Epic’s Electronic Health Record (EHR) system, which includes a hands-free virtual assistant.  The system will be implemented and used nationwide in VA medical centers to enable Voice-driven workflows as part of the Medical Appointment Scheduling System program (MASS).  The new system is expected to improve the overall experience with the VA health care system.  The U.S. Veteran’s Health Administration System has utilized Nuance technology in the past, and this new partnership with Epic is to enhance the appointment scheduling process.  Satish Maripuri, executive vice president and general manager of the Healthcare Division, Nuance commented, “Nuance has invested heavily over the last decade to develop conversational and cognitive virtual assistant and AI technologies that will improve the experience of patients, employees, and providers to support our mission of delivering solutions that help our clients deliver better patient care without technology getting in the way.”  Read more about Nuance and Epic’s partnership at the following link.

#### Additional Information:

[Press Release - Nuance and Epic Join Forces on Artificial Intelligence to Revolutionize Disabled Veterans Accessibility to Health IT](http://www.nuance.com/company/news-room/press-releases/Nuance-and-Epic-Improve-Accessibility-for-Veterans.docx)

<http://www.nuance.com/company/news-room/press-releases/Nuance-and-Epic-Improve-Accessibility-for-Veterans.docx>

**Stanford Researchers Personalize Virtual Reality Displays to Match User’s Eyesight**

February 13, 2017 - Is it possible to have a personalized virtual reality (VR) display experience for users with visual difficulties?  Researchers at [Stanford’s Computational Imaging Lab](http://www.computationalimaging.org/) and scientist at Dartmouth College are conducting research to answer this question.  The two groups are working together to develop “VR headsets that can adapt how they display images to account for factors like eyesight and age that affect how we actually see.” Software and hardware testing of what they have termed Adaptive Focus Display aims to change the focal plane of the display. Currently, it is noted that some people experience headaches or nausea when using existing virtual reality headsets. Also, vision is not able to focus naturally with current VR headsets, and some people experience difficulty focusing on items very near to their eyes. However, if there were a way to develop a headset that could measure vision, account for deficiencies, and provide an image for the person’s optimal viewing experience, this would revolutionize the industry. Questions or research considerations not mentioned in this article may include neurological factors associated with vision since the brain transmits images to the eye and additional ways to adjust images besides focal length. As stated, they are developing a prototype.  Maybe future iterations of the Adaptive Focus Display for VR would first test vision to establish a baseline of the individual’s visual ability, then make adjustments.  Another option for possible research would be to change the image to the viewer’s optimal visual ability, but this could alter the experience.  For more information and to follow developments, select the link below.

#### Additional Information:

[Stanford News on Adaptive Focus Display for VR](http://news.stanford.edu/2017/02/13/personalized-virtual-reality-displays-match-eyesight/)

**[**<http://news.stanford.edu/2017/02/13/personalized-virtual-reality-displays-match-eyesight/>**]**

**advancing the Communication Skills of Children with Autism**

February 1, 2017 - SPEAK MODalities received a $100,000 grant from the AWS Foundation located in Fort Wayne, IN.  The grant will enable SPEAK MODalities to focus on distribution of the Augmentative and Alternative Communication (AAC) apps SPEAKall!© and SPEAKmore!©.  According to the press release, these apps have enabled thousands of children who experience minimally-verbal autism improve communication and language development. They reported that approximately two-thirds of people with autism, at the outset, are nonverbal and may not develop the verbal communication skills required for daily living. These apps were developed to empower the independence, community inclusion, and fulfillment of growth potential of people diagnosed with Autism.Dr. Michael Zentner, co-founder, and CEO of SPEAK MODalities stated “We are quite thankful for this assistance from the AWS Foundation…We will be able to evaluate new innovative features of our current technologies that were recently funded by the National Institutes of Health for facilitating speech, language, and social development in individuals with minimally verbal communication skills.”  Dr. Zentner is also a research scientist in Information Technology at Purdue University and Entrepreneur-in-Residence at the Purdue Foundry.

The SPEAKall! and SPEAKmore! technologies are patented and licensed through the Purdue Research Foundation Office of Technology Commercialization.  In 2016, the National Institutes of Health (NIH) awarded SPEAK MODalities and the Purdue University AAC Laboratory a $152,599 Small Business Innovation Research (SBIR) Phase 1 grant.  Federal grants like this one and those issued by the National Science Foundation (NSF), National Institutes of Health (NIH), and the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) fund valuable research to further understand how wireless technologies can improve the quality of life of persons with a disability, and realize the development and experience of inclusive community living.

#### Additional Information:

[Press Release - Grant will help advance communication skills of autistic children](http://speakmod.com/news/grant-will-help-advance-communication-skills-of-autistic-children/)

[<http://speakmod.com/news/grant-will-help-advance-communication-skills-of-autistic-children/>]

# Upcoming Events

**Join Us at LeadingAge Georgia HackFest – Registration Closes March 9th!**

Hey students, faculty, or anyone interested in hacking for a good cause…Do you have expertise in coding front-end or back-end systems, designing interfaces or devices, working with older adults, or are you business savvy? [Join us for the LeadingAge Georgia HackFest, March 24-26th, 2017](https://www.eventbrite.com/e/leadingage-ga-hackfest-creating-innovative-technology-solutions-for-aging-tickets-31738916955?aff=eac2). It is a great opportunity to work with people from other disciplines in the domains of aging and technology and to produce some cool, innovative solutions that will benefit the future of aging.

[REGISTER TODAY!](https://www.eventbrite.com/e/leadingage-ga-hackfest-creating-innovative-technology-solutions-for-aging-tickets-31738916955?aff=eac2) $35 will save your spot (refundable when you show up to participate): Deadline to register is March 9th.

**Event Details**

Friday, March 24: 6-8pm:: Join us for a networking meet up to meet your team

Saturday, March 25: 8 am - Sunday (3/26) 10 am: Hack Main Event

Sunday, March 26: 10am-2:30 pm: Team Presentations and Winners - Innovation often comes from unexpected places! Ideas that change the future of aging are just the kind of thing that we are looking for at the 2017 LeadingAge Georgia HackFest. Not your typical hackathon, HackFest is focused on creating technology to address the challenges of aging.

**Who should Register**

Like most hacking events, we’re looking for: **Front-End & Back-End Developers**; HOWEVER, unlike most hacking events, we also want:

**+ Designers + Marketers + Gerontologists + Aging Services Professionals + Business Experts + Clinicians + Elders/Consumers + anyone passionate about the field of aging**.

**Teams**

Make your own team, or we will help you join a team. A major goal of HackFest is to create teams of people with a variety of skills and knowledge to develop a tool (an app, website, interactive online experience or device) that addresses the challenges of aging.

**Judging**

These tools will be judged by a panel of experts on originality, usability, feasibility, design relevance, and on being the "most developed" by the end of the HackFest session.

Winning teams will win cash prizes, and the first place team will win airfare, hotel accommodations, and conference access to compete nationally in the 2017 LeadingAge Annual Meeting & EXPO in New Orleans, LA from October 29 - November 1, 2017.

The LeadingAge GA Hackfest Pre-qualifying event will be at Canterbury Court Continuing Care Retirement Community, a senior living community located in Buckhead-Atlanta, GA from Friday, March 24 until Sunday, March 26 (once you have registered the full schedule will be provided).

**TechSAge State of the Science Conference Showcase**

As a bonus to get further feedback on your projects from even more experts, all teams are invited to participate in the Monday, March 27, 2017, [RERC TechSAge](http://www.techsage.gatech.edu/) [State of Science (SoS) Expo](http://www.techsage.gatech.edu/events/state-science-conference) to Exhibit from 4-8 p.m. (two contestants from each team should be present; however, all are invited). This is an ideal opportunity for the winning team to get feedback prior to the national competition. Even if you don’t participate in HackFest, you may sign up to attend this Showcase of Georgia Tech projects in the domain of aging and disability, [More Information on TechSAge State of the Science Conference.](http://www.techsage.gatech.edu/events/state-science-conference)

#### Additional Information:

[LeadingAge Georgia HackFest Registration](http://bit.ly/2kv6ZQz)

[[https://www.eventbrite.com/e/leadingage-ga-hackfest-creating-innovative-technology-solutions-for-aging-tickets-31738916955?utm-medium=discovery&utm-campaign=social&utm-content=attendeeshare&aff=esfb&utm-source=fb&utm-term=listing](https://www.eventbrite.com/e/leadingage-ga-hackfest-creating-innovative-technology-solutions-for-aging-tickets-31738916955?utm-medium=discovery&utm-campaign=social&utm-content=attendeeshare&aff=esfb&utm-source=fb&utm-term=listing%20)]

**Technology and Disability Policy Highlights,** February 2017

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The Technology and Disability Policy Highlights (TDPH) reports on national public policy events and tracks emerging issues of interest to individuals with disabilities, researchers, policymakers, industry, and advocacy professionals. The TDPH is published monthly by the Wireless RERC. 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 Synge Tyson [synge@cacp.gatech.edu], or Salimah LaForce [salimah@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.