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**VIA email**

June 18, 2012

Lynn Medley

U.S. Department of Education

400 Maryland Avenue SW, Room 5140

Potomac Center Plaza

Washington, D.C. 20202-2700

Re: ***In the Matter of National Institute on Disability and Rehabilitation Research; Notice of Proposed Long-Range Plan for Fiscal Years 2013 – 2017 [FR. Doc No. 2012-9365]***

Dear Ms. Medley:

Enclosed are comments in the above referenced notice herein submitted by the Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC).

Should you have any questions concerning our comments, please do not hesitate to contact us via email at [helena.mitchell@cacp.gatech.edu](mailto:helena.mitchell@cacp.gatech.edu) or [mike\_jones@shepherd.org](mailto:mike_jones@shepherd.org).

Respectfully submitted,

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Enclosure

The mission of the Rehabilitation Engineering Research Center for Wireless Technologies[[1]](#footnote-1) is to research, evaluate and develop innovative wireless technologies and products that meet the needs, enhance independence, and improve quality of life and community participation of people with disabilities.

“People with disabilities” is a term applicable to more than one third of the U.S. society,[[2]](#footnote-2) from students with learning disabilities, to injured soldiers, to frail elders. Though there is disagreement about the probable demographics of tomorrow's Americans with disabilities, there is no disagreement that the population will be larger. These individuals are among those most at risk in the economic crises currently constricting opportunities for education, employment, healthcare, and independent living. Amid the co-occurrence of economic crises and growth in the population of people with disabilities, wireless technologies offer opportunities for creative strategies to enhance independence and improve community participation. The increasing use of mobile social media, location-based services, telework, and home-based healthcare are just a few of the indicators that access to wireless information and communication technologies is becoming a prerequisite for successful participation in society for people of all ages and abilities.[[3]](#footnote-3)

Since 2009, Americans have nearly doubled the amount of mobile Internet data traffic they generate, much of the time spent on e-mail communications (39%).[[4]](#footnote-4) By 2016, Smartphone penetration is forecasted to increase by 66%.[[5]](#footnote-5) Smartphones with larger, high resolution displays and greater functionality are replacing the traditional landline and the desktop computer and this transition is rapidly integrating mobile technologies into the fabric of our existence. They know where we are, can anticipate what we need, and get us where we need to go. Steve Largent, president and CEO of CTIA – The Wireless Association, noted that more than 60% of people use their wireless devices to get turn-by-turn directions.[[6]](#footnote-6) This is an example of mainstream devices and software being used in an assistive manner. We see this trend also, with tablet computers and apps.[[7]](#footnote-7),[[8]](#footnote-8),[[9]](#footnote-9)

Access to mainstream technologies has become equally important as insuring innovations in assistive technology. People with disabilities use mainstream wireless devices at nearly the same rate as their non-disabled counterparts (92%[[10]](#footnote-10) and 93%[[11]](#footnote-11) respectively). Results from the Wireless RERC’s Survey of User Needs also showed that wireless technologies such as text messaging, email, instant messaging, and Internet access are all increasingly important to wireless customers with disabilities.[[12]](#footnote-12) A more recent survey conducted by the Federal Communications Commission’s, Emergency Access Advisory Committee (EAAC), noted that 90.7% of people with disabilities use wireless mobile devices including Smartphones and feature phones.[[13]](#footnote-13) Furthermore, 88% use their mobile devices to access social media networks such as Facebook and Twitter.[[14]](#footnote-14) When asked how they would prefer to contact 911, 48% responded via text technology such as instant messaging, text message, real-time text and e-mail.[[15]](#footnote-15) All of the “popular” options selected are mainstream technologies. The least popular options selected were traditional assistive technologies such as TTYs and Braille (10.8% and 1.8% respectively).[[16]](#footnote-16)

This all points to the fact that advanced wireless communications technologies hold the promise of greater access to communications and thus to the NIDRR’s proposed “domains” as outlined in the Long-Range Plan for Fiscal Years 2013–2017 (Plan): employment, community living and participation, and health and function.[[17]](#footnote-17) The promise is often unfulfilled or delayed, as Eve Hill, Senior Counselor to the Assistant Attorney General for Civil Rights, Department of Justice, states: "...a new innovation comes out, but accessibility is not built in. Time passes, and accessibility issues are raised. Advocates file complaints...and gradually some minimal access is included...The delay in access resulting from this process, and the burden placed on people with disabilities to have to fight to receive what typically turns out to be minimal access, is not equal opportunity, is not equal treatment, and is not the world that the ADA envisions.[[18]](#footnote-18)” Employing universal design methodologies and including people with disabilities in the design and evaluation of emerging mainstream wireless technologies are the essential remedies to shifting the paradigm Eve Hill expresses above.

We recommend that NIDRR, the single largest funder of disability research, include in the Plan explicit references to accessible mainstream technologies, as well as to assistive technologies. The Wireless RERC contends that the following comments could have a profound impact on how the Plan is interpreted by those that are responsible for implementation.

1. In the section that discusses *Rehabilitation Engineering Research Centers*, we recommend that the last sentence in the paragraph read as follows: “RERCs provide for the cost-effective delivery and use of accessible mainstream and assistive technology devices.”
2. In the section that discusses *Proposed Objective 1.1*, we recommend that the second to last sentence of the second paragraph read as follows: “An individual’s opportunity to enjoy such rights depends on an interaction between the individual and the physical, social and technologicalenvironment.”
3. In the section that discusses *Technology for Access and Function*, we recommend that sentence number two in paragraph one reads as follows: “At the individual level, NIDRR will focus on assistive technology devices and the accessibility features of mainstream devices and software that enhance the physical, sensory and cognitive abilities.”

Thank you for the opportunity to provide feedback on the NIDRR Plan. The Wireless RERC believes our proposed changes would integrate consideration of access to mainstream technologies into the Plan and facilitate the advancement of the state of accessible technologies for people with disabilities.

1. This Wireless RERC was made possible by the National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education under grant number H133E110002.  The opinions contained in this paper are those of the authors and do not necessarily reflect those of the U.S. Department of Education or NIDRR. [↑](#footnote-ref-1)
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3. Pew Research Center (2010). Americans living with disability and their technology profile. Online: [http://www.pewinternet.org/~/media//Files/Reports/2011/PIP\_Disability.pdf](http://www.pewinternet.org/~/media/Files/Reports/2011/PIP_Disability.pdf%20) [↑](#footnote-ref-3)
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5. Ibid, <http://www.statista.com/statistics/201182/forecast-of-smartphone-users-in-the-us/>. [↑](#footnote-ref-5)
6. Keynote remarks of Steve Largent at the CTIA 2012 Show and Convention, May 9, 2012. [↑](#footnote-ref-6)
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8. Lenovo (2011). *Tablet apps helping people with disabilities.* <http://www.lenovo.com/articles/us/en/news/tablet-apps-helping-people-with-disabilities.html> [↑](#footnote-ref-8)
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11. “Wireless Quick Facts: Year-end Figures - 2011,” *CTIA – The Wireless Association*, <http://www.ctia.org/advocacy/research/index.cfm/aid/10323> [↑](#footnote-ref-11)
12. “SUNspot 8 - Preference for Text-based Communications and Mobile Internet – 2011.08.04,” *Wireless RERC*, accessed June 14, 2012, <http://www.wirelessrerc.org/content/publications/sunspot-8-preferences-text-based-messaging-and-mobile-internet-20110804>. [↑](#footnote-ref-12)
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14. Ibid, p. 16. [↑](#footnote-ref-14)
15. Ibid, p. 23. [↑](#footnote-ref-15)
16. Ibid, pp. 22-23. [↑](#footnote-ref-16)
17. US Department of Education (2012). National Institute on Disability and Rehabilitation Research; Notice of Proposed Long-range Plan for Fiscal Years 2013-2017 [FR Doc. No: 2012 – 9365] [↑](#footnote-ref-17)
18. Eve Hill, “Statement of Eve Hill, Senior Counselor to Assistant Attorney General for the Civil Rights, Department of Justice – Before the Senate Committee on Health, Education. Labor & Pensions, United States Senate,” Washington, D.C., February 7, 2012, accessed April 24, 2012, <http://www.help.senate.gov/imo/media/doc/Hill1.pdf>. [↑](#footnote-ref-18)