The National Broadband Plan
and
Accessibility for People with Disabilities

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On March 10th, 2010, the Federal Communications Commission, Information Technology and Innovation Foundation (ITIF), American Association of People with Disabilities (AAPD), and the Silicon Flatirons Center put on a conference hosted at the Martin Luther King Jr. Library in Washington, D.C. in conjunction with the Adaptive Services Division of the DC Public Library. This conference focused on the National Broadband Plan and how the Plan addresses Internet accessibility concerns for people with disabilities. The entire conference was recorded and televised with closed captioning and sign language interpreters, as well as other provisions, in order to ensure full accessibility.

Opening Remarks

The conference proper began with remarks by the Chairman of the FCC, Julius Genachowski. The Chairman started by pointing out how communication and communications policy have the ability to transform people's lives for the better and, along these lines, how broadband is a key 21st century platform. "Broadband is our generation's major infrastructure challenge," said Genachowski, "It is like roads, canals, railroads and telephones for previous generations." Importantly, in the American Recovery and Reinvestment Act of 2009, Congress and the President charged the FCC with developing a strategy to bring broadband to all Americans, especially those with disabilities. "Few populations stand to benefit more from broadband than the millions of Americans with disabilities," he said, and, "broadband holds tremendous potential for people with disabilities to communicate and connect with others, to engage as part of our national civic discussion." Disturbingly though, only 42% of people with disabilities use broadband versus 65% of the general population, with 39% of non-adopters having a disability of one kind or another. In an effort to bridge this divide and fulfill Congress' mandate, according to Genachowski, the FCC has created a National Broadband Plan and it contains a number of recommendations for how to build in accessibility from the start. The Plan is detailed but is also based on four underlying principles of "enhancing coordination, improving enforcement and implementation, using data wisely, and updating our policies for the 21st century."

When it comes to the Plan's specific recommendations, said Genachowski, at a high level they will include: (1) formation of an interagency working group to coordinate policies that promote broadband adoption by people with disabilities and coordinate a government-wide assessment to ensure each federal agency is complying with requirement that communication technologies be accessible—this review should extend from websites used by the public to I.T. equipment purchased for agency use; (2) establishing an ongoing accessibility and innovation forum which will promote the use of collaborative problem solving processes; and (3) Congress, the FCC, and the Department of Justice (DoJ) should update and enforce accessibility laws—specifically the DoJ should look into the applicability of the Americans with Disabilities Act (ADA) to commercial websites. As a final note, the Chairman felt strongly that, as the United States moves forward with building out broadband and working to achieve its goal of 1 gigabit per second network Internet access speeds in "anchor institutions" in every community, "building in accessibility in the design and development stage is cost-effective" and "all of society benefits

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from the widespread use of accessibility features such as captioning, speech recognition, and speech output."

The Chairman was followed by Kareem Dale, the Special Assistant to the President of the United States for Disability Policy. "Accessibility equals independence," he said, and it was "as simple as that." Dale pointed out how, for those with disabilities, being able to read independently is very important and, with a hat tip to the conference's host, how critical the Martin Luther King Jr's library for the blind is. He then discussed what "accessibility" in the Obama Whitehouse means. In the beginning, according to Dale, there was very little in terms of accessibility technology, but the White House was "willing" and "committed" to providing him with full access to the processes and technologies they used. This included Blackberries and laptops, and required using technologies from "talking" software to "talking" caller ID in order to allow him to do his job and at top performance. Dale said the White House is also working on providing closed captioning on its website, web chats, and speeches.

OBI Working Paper and Implementation

Following the opening remarks, Joel Gurin, Chief of the Consumer and Governmental Affairs Bureau at the FCC, along with Elizabeth Lyle, Policy Advisor at the FCC for the Omnibus Broadband Initiative, talked about some of the specific recommendations in the National Broadband Plan and a separate white paper released shortly thereafter that would provide some context and analysis for the recommendations. An underlying assumption of the entire National Broadband Plan, according to Gurin, is that the FCC will not be implementing all of the recommendations and certain responsibilities will fall on other agencies.

Initially, Lyle emphasized the FCC's approach was to "integrate consideration of disability issues throughout the Plan." She said there are a few "key" barriers to broadband adoption in the United States, including affordability and accessibility barriers, a lack of "digital skills" in some segments of the population, and a lack of content for certain groups. The Plan itself, according to Lyle, recommends action in three "umbrella" areas: (1) the creation of a broadband accessibility working group within the executive branch; (2) establishment of an accessibility and innovation forum at the FCC; and (3) specific actions on the part of the FCC, Department of Justice, and Congress.

Under the first umbrella recommendation—the broadband accessibility working group—Lyle said the group should consist of 15 agencies with a stake in broadband accessibility issues and focus on making the government itself a model of accessibility through improved implementation of Section 508. It would also coordinate accessibility policy and spending priorities, such as lowering the cost of assistive technologies and ensuring full interoperability between technologies. One example would be a proposal for a unified network-based delivery system for assistive technologies through computing and other platforms. Software enhancements to the broadband infrastructure, such as these, would allow people to call up applications anytime, anywhere, and on any device. The working group should also consider how to lower the cost of assistive technology, new software distribution and licensing models, and whether subsidies are needed for assistive technology vendors. Finally, according to Lyle, the working group should prepare a report on a biannual basis and publish its first report within the first year of its establishment. The report would collect and analyze information about broadband adoption, barriers, and usage among different subgroups in the disability community, and incorporate the results from questions included in the FCC's service under the Broadband Data Improvement Act. This report should also analyze the root causes of the relatively low broadband adoption rate among people with disabilities, paying close attention to different subgroups.

Under the second "umbrella," said Lyle, the Plan should recommend a forum for collaborative solving among stakeholders. This is necessary to supplement traditional regulatory processes given the rapid pace of technological development, the diversity of stakeholders, and the complexity of the problems. Related to this forum, the FCC will hold ongoing workshops and an annual award for accessibility and innovation. An online presence will help facilitate problem solving for the forum.

Finally, under the third "umbrella" Lyle described some of the specific recommendations in the Plan for the FCC, Department of Justice, and Congress, which are: (1) using HR 3101—proposed legislation involving access for individuals with disabilities to emerging Internet Protocol-based communication and video programming technologies—as a starting point for additional legislation; (2) extending the FCC's Sec. 255 Rules concerning telecommunications access for people with disabilities; (3) extending the FCC's hearing and compatibility rules, to the extent it is technologically feasible to do so, to all types of devices providing VoIP communication via built in speaker and that are typically held to the ear; (4) opening an FCC proceeding on the need to implement a standard for reliable and interoperable real-time text where VoIP is available and supported; (5) moving to advanced E911 emergency services; (6) amending the Department of Justice regulations to clarify the obligations of commercial establishments under Title III of the Americans with Disabilities Act (ADA) with respect to commercial web sites; (7) opening an FCC proceeding on the accessibility of video programming distributed over the Internet, along with clarification from Congress that the Commission has the authority to adopt video description rules; and (8) subsidies for people with disabilities who require high cost equipment to use broadband and the Internet but cannot afford it.

The eighth recommendation is actually two-part, according to Lyle. First, the Plan recommends that Congress should authorize the FCC to use Universal Service funds to provide competitively based funding to developers of innovative devices, components, software applications, or other assistive technologies that promote accessibility. The funding would be capped at $10 million per year. Second, the Plan recommends federal support for those who do not have access to existing technologies. In terms of subsidies, those that are deaf and blind are a very sensitive group. The technology they require is extremely expensive on an individual basis, but it is small overall population, so the total amount of money required to subsidize their accessibility needs would be relatively small.

Finally, Joel Gurin talked more about how the rubber would actually meet the road in terms of implementation. The Disability Rights Office will be doing much of the implementation in terms of recommendations for the FCC, he said, and it is a part of the Consumer and Governmental Affairs Bureau. They will be responsible for setting up the accessibility and innovation forum and are structuring it as a collaborative problem-solving forum that can be a model of new and open government. They will also build a presence online. The vision, according to Gurin, is to have an online space where the FCC will be engaged—where people facing accessibility issues can meet with those who are working to solve those issues. The Commission is looking into setting up an online clearing-house of products that make broadband more accessible. Gurin said the Commission will be using "new media" tools to communicate regularly on accessibility issues in order to provide information about the complaints they receive and inform people as to what trends they are seeing. Finally, there will be a blog tracking other private and public collaborative efforts from all over country and the world. Additionally, the forum will have ongoing in-person workshops about four times a year, both in Washington and in other innovation centers around the country.

Stakeholder Roundtable: Reactions and Next Steps

Next came a stakeholder roundtable where various organizations discussed their reactions to earlier remarks, the implementation whitepaper, and the National Broadband Plan generally. The stakeholders in attendance ranged from the network service providers involved with the build out and day-to-day operations of network infrastructure, to individuals who design and implement accessibility features into software and hardware, to groups who advocate on behalf of persons with disabilities, to academics and researchers, all the way to students with disabilities themselves that use and benefit from the accessibility technologies. The panel was mediated by Robert Atkinson, President of the Information Technology and Innovation Foundation (ITIF) and Jenifer Simpson, Senior Director of Policy at the American Association of People with Disabilities (AAPD).

Eric Bridges, Director of Advocacy and Governmental Affairs at the American Council of the Blind, started off the panel with pointing out how in the blind community access to broadband was access to knowledge, and how knowledge is power—as well as employment, education, and social media. Modern technologies, such as the digitization of books (through the Google books settlement) and the modern trend of smart phones, vastly increase access to knowledge for people with disabilities. Bridges also felt applying the Americans with Disabilities Act to commercial websites would be a significant step forward.

Vint Cerf, Vice President and Chief Internet Evangelist for Google, discussed how Google's approach to organizing the world's information was also a push to make that information accessible. He felt an open platforms approach, which allows for anyone to innovate without permission, has positive and strong implications for accessibility. "It allows others to contribute information and to invent new applications, and it is my belief that theme is important for accessibility," he said. Open access, according to Cerf, lets "people with good ideas apply them in all the various ways in which the Internet can be made available." Cerf then built upon Bridges' statement and asserted it is not just knowledge that is power, but information sharing is power as well.

Rosaline Crawford, Director of the Law and Advocacy Center for the National Association of the Deaf, echoed Chairman Genachowski's comments and stated, "this is a big deal." She applauded the FCC for acknowledging the need for HR 3101 and asked what the stakeholders could now do to support it. She picked out three key areas of the OBI white paper and agreed: (1) the federal government should be a model for accessibility; (2) the DoJ should make sure the ADA applies to all commercial websites; and (3) universal accessibility design should become the norm now and not a "retrofit" in the future.

Jason Goldman, Counsel for Telecommunications & E-Commerce in the Environment Technology & Regulatory Affairs Division at the US Chamber of Commerce, pointed out how broadband allows people to "dream big" and has the power to transform all sectors of the economy. With a broadband connection, he said, each person, regardless of location has the ability to "market [their] services and products to everyone in the United States and everyone in the world." He said the Chamber of Commerce is pro-broadband and pointed to statistics showing how large numbers of people would start working, through telecommuting, if they had access to broadband. Goldman also pointed to a report by the Chamber on the very same subject, titled "The Impact of Broadband on People with Disabilities."

Larry Goldberg, Director of Media Access at broadcaster WGBH, joined the discussion from a remote location via Skype video call. He felt the major barriers to adoption of broadband were cost and lack of content. As a broadcaster, he said WGBH is moving its content and services online, while at the same time providing closed captioning and video descriptions. He pointed out how in the recent past many consumers had sacrificed portability for quality in audio and video

(pointing to the lower bit rates and quality inherent in various compression formats for video and audio—such as MP3, etc), but as broadband becomes more ubiquitous Goldberg felt the quality of products would go up. He mentioned how WGBH provides closed captioning and video description and how this would become "pervasive" in the media industry moving forward. "Clearly without pervasive accessibility," according to Goldberg, "which is a clear driver of broadband adoption, people with disabilities will remain part of the non-adopter segment for a long time."

Link Hoewing, Assistant Vice President for Internet and Technology Issues at Verizon, felt, as broadband became more ubiquitous and especially as cell phone providers moved to "4G" technologies, more capacity would mean more capabilities for those with disabilities—for example, 2-way video allows for sign language phone calls. In reference to the potential of the high bandwidth advanced video services, Hoewing said, "Many experience for the first time in their lives what it could mean to communicate with others in the way they know best, through signing." Hoewing also felt HR 3101 was very important because it required a multitude of companies to help with the accessibility effort; multi-stakeholder involvement being key as the Internet grows into a complex interconnected "ecosystem."

Leah Katz-Hernandez, a student at Gallaudet University speaking through a sign language interpreter, said as a deaf person her life depends heavily on broadband access. She stated that "with broadband access, I do not feel disabled, but when I do not have high-speed Internet, it throws me back to the days when deaf people had to depend on others." Katz-Hernandez pointed to the pace of technological development and how TTY (a special "text telephone" device that lets people who are deaf use the telephone to communicate but requires a TTY at both ends of the conversation) is now considered obsolete, with video communications becoming far preferred and much more important. She described how she uses video to call her non-deaf father and feels significantly safer in areas where there is access to videophones. As a final note, Katz-Hernandez pointed to the bandwidth caps put in place by some Internet providers and how these "uniquely" disadvantage the deaf community. In her house, she said, many of her roommates use video to communicate via sign language both within the house between deaf roommates in different rooms and to people outside of the house—this video intensive dynamic of a deaf household creates large bandwidth needs. Because her deaf household's communication needs are so bandwidth intensive, at times their service is slowed down or degraded by the Internet Service Provider (ISP).

Kate Seelman, Associate Dean and Professor of Rehabilitation Science and Technology at the University of Pittsburgh, felt there should be a dialogue with industry in order to develop new approaches to accessibility because both the reliability and pervasiveness of accessibility services is very important. She felt many innovations and devices created in the academic setting would more easily get to market with input from industry. Seelman also pointed out how more students and faculty than ever were coming in to the university environment with disabilities.

Fernando Laguarda, Vice President at Time Warner Cable, said, "accessibility equals independence" and highlighted how the impact of broadband accessibility could be "transformational" for people with disabilities. He felt the National Broadband Plan would provide a "unique opportunity" for his company to focus on "inclusion as a value that informs the way we run our business." He also felt the government could be a good role model for accessibility but there was also a key role for innovation in solving accessibility challenges. Generally, Laguarda applauded the accessibility goals of the Plan.

Axel Leblois, Executive Director at G3ict, highlighted the global perspective and said the National Broadband plan was timely for both people with disabilities and global markets. He pointed to the UN Convention on the Rights of Persons with Disabilities and how the U.S. signed the Convention in 2009. He said this made the right to access information online a fundamental

right in international law; that it equated an access ramp into a building with accessible websites and made both equally important. Along the lines of internationalization, Leblois said technological standardization was critical in order for devices to work properly in more than one country and at a reasonable cost. Susan Mazrui, Director for Public Policy at AT&T, pointed out how people with disabilities cover all walks of life and approved of how the FCC was asking for input from all affected parties. Mazrui said all "layers" must be involved and appreciated the collaborative approach. She also applauded the government's desire to be a role model and leader when it came to accessibility.

Ari Ne'eman, President of the Autistic Self Advocacy Network, felt an important theme in the discussion was "space." Space, such as buildings and other public venues, should be open to everyone, he said, and he was pleased with how society was beginning to see the Internet in the same light as any other space that needs to be publicly available. He said broadband in disabled communities provides for the ability to create cultural "space" with a sense of both community and culture. Referring to the statistics cited by the Chairman earlier, Ne'eman said the disabled communities might be accessing the Internet in smaller numbers but the access has a much greater impact on those that do.

Laura Ruby, Director of Accessibility Policy & Standards for Trustworthy Computing at Microsoft, said she was "excited" about how the National Broadband plan requires biannual reports on how accessibility is being used and how the FCC will be making investments into the entire accessibility "ecosystem." These reports, she felt, could help the industry to incorporate valuable features into their products. Making the government a model for accessibility, according to Ruby, is also important.

Ken Saleats, Director for Global Policy at the Information Technology Industry Council (ITIC), said the National Broadband plan was fairly extensive in its "vertical" and "horizontal" reach. He talked about "competitive" funding and said the Plan should focus on delivering technology that makes a difference, not just rewarding skilled grant writing. Saleats said that ITI will launch an initiative focused on industry best practices, to highlight not only those who create the technologies but also the businesses using the technologies to deliver services.

The last speaker, Gregg Vanderheiden, Director of the Trace R&D Center and Professor of Industrial & Systems Engineering & Biomedical Engineering at the University of Wisconsin-Madison, said accessibility is a big issue affecting a large number of people. He felt the only way to address it properly was to "build it in" from the "beginning." He pointed out that when it comes to legislation, interested parties often look at the pieces that work for them and those that work against them. Here though, according to Vanderheiden, it is key to look at solutions that work for all parties. He also felt the new technologies needed to be affordable, work as seamlessly as possible in order to reach the widest possible user base, and cloud computing—where individual users' accessibility needs or "profiles" could be stored and retrieved regardless of the particular device being used—was an important accessibility technology.

Closing

In closing, the speakers and moderators thanked the panel and highlighted the importance of including people with disabilities in the broadband conversation. As the National Broadband Plan begins to set policy for the foreseeable future, this conference showed accessibility is important to both the FCC and all stakeholders involved.