REMARKS OF
COMMISSIONER JESSICAL ROSENWORCEL
W3C20 ANNIVERSARY SYMPOSIUM: THE FUTURE OF THE WEB
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Good afternoon. It is terrific honor to be here with you celebrating the 20th anniversary of the World Wide Web Consortium.

We are also here to celebrate another anniversary. This year the Web turned 25. Tim Berners-Lee, the inventor of the Web and our host today gave a talk—a TED Talk—earlier this year and asked that we mark this occasion by coming up with a *magna carta* for the Web. Now when Tim Berners-Lee has an assignment for us involving the Web, I submit we should listen—and maybe even stand up and salute. So today I want to do my part and respond to his request.

For me, the history of the Web is one of inclusion. It is one that involves breaking down barriers. After all, it is our global town square. It is our individual soapbox and our shared platform for opportunity. It has forever changed the way we connect, create, entertain, educate, and govern ourselves. So looking forward, I submit that our *magna carta* should include access for people with disabilities.

To put it another way using W3C's basic premise: The Web is for everyone. So then how can we harness the power of the Web and all the technologies it enables to knock down the remaining walls of exclusion that keep people with disabilities from participating fully in our modern, civic, social, and economic life? That's a big question. I certainly don't have all the answers. But I have some ideas.

These ideas have to do with three things: Stevie Wonder, Optical Character Recognition, and Bahrain. Yeah, I know they sound like they have nothing in common. But stick with me and I'll show you.

So let's start with Stevie Wonder. A few weeks ago, Stevie Wonder visited me at the Federal Communications Commission, where I work. Now, I admit, I have a cool job. In my role as a regulator, I get to meet lots of interesting people. But legendary musicians are not typically among them. In this case, though, Stevie Wonder is not just a legendary musician. He is also a tireless champion for access to communications and media technology for his fellow Americans with disabilities.

This happens to be a passion we share. In fact, the first time I met Stevie Wonder was four years ago, when he stood in in the White House by President Barack Obama as he signed the Twenty-First Century Communications and Video Accessibility Act into law. I was there too—well beyond the spotlight and deep in the audience. But there, none the less. I was there because I had the privilege of working on this historic legislation when I served as counsel to the United States Senate Committee on Commerce, Science, and Transportation. Now if you haven't heard of this law, you should. Because what this law does is big. It builds on the Americans with Disabilities Act. That means for the 54 million Americans with disabilities, it

pries open new opportunity for the Internet era. I will always be proud I had the opportunity to play a small role in its passage.

But I am even prouder of the work that we have done at the FCC to implement this law. Since its passage, we have worked with the disabilities community, equipment manufacturers, broadcasters, and communications companies to put key policies in place. As a result, we have improved closed captioning on a range of video platforms, we have developed video description policies, and we have enhanced the accessibility of user interfaces and video programing guides and menus. This is good stuff. But there is also a broader lesson from the effort implementing this law. By bringing everyone to the table, we have kick started a conversation about accessibility in new technologies by design. If we keep this discussion going, we can do a lot more to extend opportunity and access in the digital age. Because instead of playing an endless game of catch-up, we can have accessibility and innovation walk together hand in hand.

This is how it should be. After all, some of the essential technologies we rely on today first came to market to meet the needs of people with disabilities. This brings me to Optical Character Recognition, or OCR.

In 1974, inventor Ray Kurzweil developed a version of OCR that could recognize printed text in virtually any font. He knew this was powerful, but was struggling to identify practical applications.

Then one day he sat next to a blind man on a plane. This individual told him that one of the biggest obstacles he faced was his inability to read printed material. A chance encounter, sure. But, as the story goes, this encounter inspired Ray Kurzweil to use his omni-font OCR to create a reading machine for the blind.

He set off to build this reading machine. But to make it work, he first had to develop a specialized flatbed scanner and text-to-speech synthesizer. By 1976, he combined these technologies with his OCR development and unveiled the first successful reading machine usable by the blind.

But the story does not end there. Because a few years later, LexisNexis used the same OCR technology to upload legal documents into what was then its nascent online set of research databases. And over time more use cases emerged. In fact, flatbed scanners with OCR are now commonplace in every office. OCR software that recognizes many fonts has been used to digitize tens of millions of books and make them searchable online. Even today, cool applications keep coming—like smartphone services that use OCR to read and translate signs in foreign languages.

I like this story because it reminds us that new technologies used by the disabilities community often have applications for all. Consider, for example, wearable devices. For a young veteran who has returned home with injuries, wearable technology is not simply a novelty. It's a chance for healing at home with at-home healthcare monitoring. Think about what a self-driving vehicle can mean for the blind. Think about virtual reality. It's not just for gamers. It has already been put to use to teach new wheelchair users how to navigate a virtual world before

putting these skills to practice in the real world. Then think about the Internet of Things, where billions of sensors communicate with one another wirelessly. Sensors at the grocery store can communicate with the smartphones of a shopper with disabilities, providing vital information. A classroom with RFID-tagged toys and a computer can help deaf preschoolers learn language by animating signs. Then think about how if we introduce technologies like these on a global scale, the possibilities for accessibility for the more than one billion people with disabilities worldwide—well, they're endless.

Which brings me to Bahrain. Bahrain is small island nation, along the western shores of the Persian Gulf, near Saudi Arabia and Iran. It's hot. Really, really hot. And humid, too. This summer, this island was the unlikely gathering place for more than 165 nations. These countries came together for the Global Symposium for Regulators held by the International Telecommunications Union. As you might imagine, all sorts of regulatory policies are discussed in this kind of setting. Countries compare notes on spectrum and broadband. They share policies involving the challenges of competition and rural communications. But for the first time ever at a meeting like this, the United States decided to convene a session on disabilities access. We decided that along with the usual topics, we needed to start a conversation with our colleagues around the world about making the digital age more accessible for all.

This first meeting was a success. We found other countries were interested—really, really interested. We talked at length about what we did in the United States to implement the Twenty-First Century Communications and Video Accessibility Act. We offered to share our lessons learned. After all, there is no need to reinvent the wheel. There are scale economies our policies develop that other countries can borrow and grow. Going forward, we need to hold sessions like this at every gathering like this of the world's communications ministers and regulatory officials. Because if we convene these discussions every time we participate in international meetings, I believe in a few years we will see change at a global level.

So that's Stevie Wonder, OCR, and Bahrain. Strange bedfellows, but together I think they tell a story. Let me summarize it now. We need to put in place policies that extend access to all in the digital age. We need to recognize the broader market opportunities that accessible technologies can create. And we need to push these policies and innovations out across the world.

Now Stevie Wonder's 1976 hit Sir Duke is one of my favorites. If I could sing it to you here, I would—but I will spare you my vocal musings. Instead, let me share with you the lyrics: "Music is a world within itself with a language we all understand. With equal opportunity for all to sing, dance, and clap hands." Today, let's commit to making the Web and the technologies it enables a world with a language we all understand, with equal opportunity for all to create, participate, and take a stand. That is my *magna carta* for the Web.

Thank you.