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Burton Blatt Institute at Syracuse University
BBI-eQuality: The Struggle for Web Accessibility by Persons with
Cognitive Disabilities
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>> CELESTIA OHRAZDA: Good afternoon and welcome to today's
webinar, eQuality: The Struggle for Web Accessibility by
Persons with Cognitive Disabilities. My name is Celestia and I
will be serving as moderator for today's session. I am the
technology consultant for the Burton Blatt Institute at Syracuse
University. Today's webinar is hosted by the Burton Blatt
Institute at Syracuse University and the Southeast ADA Center
part of the ADA National Network. The ADA National Network is
made up of ten region centers and providers information,
guidance and training on the Americans with Disabilities Act,
otherwise known as the ADA.

Our services are tailored to meet the needs of businesses,
government, and individuals at local, regional and national
levels.

Before we get started I want to share some information and
answer some of the frequently-asked questions we have received
about the webinars.

Today's webinar is being conducted using the Blackboard
Collaborate as the platform. All phone lines will be muted
during the session. Please note that we are unable to
troubleshoot individual technical issues during the webinar
session.

Our speaker will be using the video feature of Blackboard
Collaborate.

For enhanced viewing experience we suggest reposition and resizing your audio video panel. You may detach and relocate the panel by dragging and dropping the panel. Click on the audio video panel's upper gray bar and while still holding your mouse button down, drag it anywhere on your desktop. Once you have detached audio/video panel you can resize by placing cursor on the edge and using the arrows to resize as needed. I would strongly recommend you resize your video to fill almost the entire screen. All the sessions are being captioned. If you need captions please kick on the CC icon and in the toolbar provided to open a separate window captioning. Today's session is also being recorded and we will send you a link to the archive after this session. Please share freely colleagues who may have missed this opportunity. Questions will be addressed at the end of today's presentation. You may submit questions at any time by typing them into the chat area.

At the appropriate time the questions will be read out loud for the benefit of all participants, the captioner and the transcript.

Today's webinar features Dr. Peter Blanck, Chairman of the Burton Blatt BBI at Syracuse University. He will discuss and answer questions about his new book entitled: EQuality: The Struggle for Web Accessibility by Persons with Cognitive Disabilities. Published by Cambridge University Press in 2014. He will present his ideas about the right to equal access to the Web by persons with cognitive and had other disabilities to support full participation in all aspects of daily life. His recent article, the struggle for web equality by persons with cognitive disabilities, published in 2014 is available as background reading and I will post link in chat window. At this time I will turn over to Peter.

>> PETER BLANCK: Thank you, Celestia and everybody for your interest and support in this emerging and important area.

So I shall begin Celestia?

>> CELESTIA OHRAZDA: Go right ahead, Peter.

>> PETER BLANCK: Okay. It's certainly is a pleasure to be with you virtually today. I see many friends and colleagues joining in and I look forward to interactions on this call and elsewhere.

I must say, I did not anticipate much of a response to this book, although because my mother usually buys the 12 copies that are sold of any particular book I may write and then the rest kind of sit somewhere, but I was in Denver, Colorado, last week signing about 400 copies, which was gratifying to me in the sense that I had a chance to learn from individuals who were interested in this area. And I had a chance to speak with the sponsors of this particular book: EQuality which is the -- for

persons with cognitive disabilities who has been with me from Day 1 on this important project.

My own work in this area, really, goes back to the birth of the ADA 25 years ago, of course, we will celebrate the 25th anniversary of the ADA coming up next summer, as well as the 25th anniversary interestingly by of the birth of the web when Tim Berners-Lee -- after passage of ADA I had been writing about workplace accommodations and had been engaged by the Annenberg Foundation to talk about accessible communication disaster employment and one day I got a call from one the assistants in the U.S. Attorney General's office and they said would you like to testify before Congress on hearings about whether or not the Americans with Disabilities Act is broad enough to cover, to support Web technology. And at the time, of course, it was not as ubiquitous as it is now. I mean the Web was relatively new. And there were efforts in Congress to actually constrain the reach of the ADA only to physical places.

So in hearings before Congress at the time it was chaired by Henry Hyde who went on to chair the Clinton impeachment proceedings. I think the Constitutional Committee. I talked about my views and others as well as that the Web was a virtual place that lent itself to the kinds of antidiscrimination and -- provisions ADA spoke to. And I think over time there's been resistance to this idea and acceptance of this idea, but, really, even today, this concept is still not settled.

Now the book that I am talking about today in the series of articles called eQuality, is written at the what, I think, is as many of us would say a transformative time in many ways. We now, of course, are at the 25th anniversary of the Americans with Disabilities Act. We have passage of perhaps the most important law passed since the ADA and some that, of course, is the Communications and Video Accessibility Act, CVAA. We have the Convention on the Rights of Persons with Disabilities, the CRPD which the United States has yet to ratify and many of you us hope the Senate will ratify it, but in the CRPD like the ADA is important language about full and equal participation to technology, the web, assistive communications and so forth. We have signed, by the way, last summer the so-called Marrakesh treaties -- providing eBooks in one country which is important to developing countries many there exists a book famine. We, of course, live in a time mobility, mobile access. The ubiquitous use of tablets and cellphones. And increasingly, we are all operating in the cloud.

So we have an environment in which everybody is operating on the go and realtime. And data and information are stored elsewhere besides on your computer.

And this Web 2.0 environment, Web 1.0 was more of a static web where you basically posted information.

Web 2.0, so-called is participatory and meant to engage people really in the democratic process of discussion on the Web.

Web 2.0, of course, has raised a whole host of information issues ranging from privacy we talked about, of course, the whole NSA debate with regard to the use of information and so forth.

Security of information, with regard to ownership of information, content on the web and, of course, with regard to equal access to the web. Now eQuality, the title of the book, is meant to have multiple meanings, obviously, the concept of eQuality under law is meant that people with persons with disabilities like anybody else should have full and equal participation and just as there's screen-reader technology for people who are blind or captioning for people who are deaf, I have argued and others now are beginning to argue that the content itself, the comprehensibility and should be fully usable by people with cognitive disability. What's unique about the web is that long time the rub in the disability community has been laws like the ADA present both positive and negative rights. Negative rights like that shall not discriminate, but positive writings like people with disabilities are entitled to accommodations in order to make equal access to society within reason. That's the concept of reasonable accommodations. The thing about electronic equality is that both can be achieved in ways that are personalized and ways that support universal usage so that accommodation, no longer takes on the separatist term it might have had in the past. Accommodation on the Web is easy to adjust color contrast to add words to contents or speech, to change the way in which information is presented.

To change the way in which images are presented and all of this allows for a personalization of information, which is unique to the Web.

Now the book that I have written and a series of articles is also based on the lived experiences of so many pioneers, people with disabilities who I have had the pleasure to work with and many are on this call. The ADA for a law that has been designed arguably to level the playing field for people with disabilities who have been historically excluded from society, the law has resulted in terrific pushback and terrific widespread questioning. For example, there was just an article in the "Wall Street Journal" yesterday about small businesses' reaction to what are perceived to be many, many lawsuits with regard to physical accessibility. While, of course, it's true that sometimes people can be overly litigious and sometimes it's not

warranted in many cases it's hard to say this Gosh darn law has been in effect for 25 years and now you are saying a small business you don't know that a ramp is -- I would say in this regard, based on my studies and studies of others, that when well done, accommodations like that not only enhance the access for people with disabilities to the retail environment, but also for many other individuals as well, older individuals, individuals who may speak and use English as second language and many others with cognitive disabilities which will see as particularly in the electronic arena. Why is the right to the web -- the content on the web. There's no denying if you don't have a computer if you don't have a cellphone or access to Broadband there are accessibility issues. Given that I am particularly interested in, however, large group of people who are participating in web billions and billions people in which most of the content is prepared for, quote, the standard normal bodied user with less awareness can people cognitive disability who I will define in a second. The legal proposition that I have tried to articulate in the book and I will read to you is it has a lot of lawyer language, but meant to be straightforward in courts and subsequent cases and so forth. I have said in this book that the full and equal enjoyment of the web, enjoyment not in the sense of having fun, but in the sense of equal participation, is to have the meaningful, not kind of tokenistic, reasonable in the circumstances opportunity really what the law is about. It's not about mandating outcomes, but about mandating equal opportunity. To enjoy which means to access and use, web content and, of course, other sorts of related information, and not to be excluded from that prospect on the basis of cognitive or any other disabilities either by individuals or by through the design of web technology itself.

Now, in fact, the words accessibility and usable don't appear anywhere in the ADA or the CRPD. They talk about full and equal participation and that is why we can have a conversation later that me and many others say this is not about mandating technical standards or performance criteria, because technology is changing so quickly, even though we may look to the Web content accessibility guides. The so-called WCAG but the more about the functional outcome, that is how is that people with disabilities can have equal access to the web? However that is defined.

By way of background, why important? Independent of people with disabilities the Web has been described as the major democratizing vehicle of our society. It involves the creation of ideas, the sharing of ideas. The growth and sharing of economic issues.

And, of course, economic freedoms that are essential to democracy. It also, of course, is key in this day and age to autonomous active collective participation in citizenship and this is particularly true in my view and many others for people who are otherwise excluded from the physical world. The Web provides that opportunity.

Now there's a famous Harvard law school Professor named Lawrence Lessig, many of you written about articles how access to web code fair code in terms of access to the Web, really is the epitome of access to equal the in the law. And I have taken that a step further in my little sphere suggest that without access, equal access to web content you cannot have equality as well. The other thing about the Web is that the Web amazingly divorces content from format.

Which is very important to issues of universality and accessibility. What does that mean? It means that we no longer have to have a printed book to tell a story. A person can choose to hear it, see it, to have it in plain language, to have it in sign language, to have it in ways that are best formatted for that person to fully achieve and understanding of that information. In today's worlds, the Web as I said is ubiquitous and everywhere. And last year, the end of 2013, there were a billion smartphones bought worldwide and that number was expected to double by next year, 2 billion.

There are 7 billion mobile subscriptions around the world that's half of the world's population.

There are 50 billion mobile web applications were downloaded alone last year and there's 700 million websites. So clearly there are huge opportunities for education, employment, civic activities, recreational activities, social networking.

And in all of this, of course, there are a billion people with disabilities and their families living around the globe, most continue to live in poverty, many in developing nations. There's a high literacy proportion -- and terrific disparities in access to social services, healthcare, rehabilitation. And this is why the web can be so important in flattening that world. Now in 2013 I was very fortunate to collaborate on a different book with two stellar labor economists and leaders in the disability community, Lisa Schur -- and Doug Kruse, who recently ended his term at the White House on the Council of National -- look at the information gathered over years from big surveys with regard to the life of people with disabilities.

What we found among many other things perhaps no surprise people with cognitive disabilities, autism, intellectual, post-traumatic stress disorder, their poverty levels were by far the highest, as opposed to with visual and mobility impairments. People with cognitive disabilities continue to have the lowest

employment rates across the disability community as well as nationally. As compared to others. Sadly even today people with cognitive disabilities continue to be segregated in society more than other groups. And experience great stigma and remain an untapped source of resources in our country. And includes people with cognitive disability the people who are termed print disabled -- the director General of Daisy a leader in this area people who cannot read print because of the physical visual perceptual or cognitive disabilities. Now the ADA as I have said, was birthed in 1990 before the Internet really was around.

And as I said also, ironically that was the same time as Tim Berners-Lee was building up his ideas for the web. The preamble for the ADA is really a vision for the web. It's to promote democratic and equal participation in society and employment, which is Title I, in Government, Services, which is Title II and retail and commercial services, which is Title III and I have mentioned to you that since the early 1990, I have been writing doing research and advocating for full and equal access to the web. Early on after the web was developed, there began a series of legal cases, challenging the idea that the Web was not covered by the Americans with Disabilities Act. When I think about it, there's no place that is as broad you can think of virtual place that has implications for people's daily lives. I was very fortunate to be pro-counsel pro bono in a legal case Target Stores regarding the American Foundation for the Blind. The real lawyers were the disability rights advocates, and others. And the lawsuit was about questioning why Target under the ADA wasn't obligated to make its website accessible to people in that case who were blind.

Much of Target's features were not usable with screen-reader software with which speaks what is said on the web the text said on the web and this, of course, resulted in the inability for people with disabilities who are blind to use the Target website. That was a long and protracted litigation. In California I said the 9th circuit, because in the United States federal courts there are Federal trial courts and the states are clumped or grouped into a 11 or so circuits which are the appeal courts, the appeal areas for the Federal courts, the 9th Circuit is very important circuit, California, Arizona, Hawaii, and northwest and Historically has been very sensitive to disability issues. First Circuit, for example, is the clump of states in Massachusetts, the Second Circuit is where New York is and so forth. Target case was about whether or not the ADA was broad enough to cover website. And there had been other historical precedents or 9th Circuit fairly complicated litigation, but in essence of the Target decision was that as long as there was a legitimate tie to the physical operations of the business,

people who used the web under the ADA had to have accessible features on the web. So what does this mean?

My mother who is 94, who if she was going to use the web and order pictures or participate in a bridal registry or whatever on Target that was required to be accessible under the ADA as long as she was going to do something or go to the store. Buy something in the store. The reason was it's kind of a historical anomaly but the case in the 9th Circuit developed so there was required to be in nexus, kind of splitting the baby a little bit, that yes, we will cover the web, but you still have to be doing something in the physical world. Now many of us thought this was a great victory, but didn't go far enough. After that began to be more and more cases involving access to the web by persons with disabilities. And highlighted one other two others perhaps I was fortunate co-counsel to work with fantastic lawyers disability rights advocates, Linda Dardarian and others, in representing a group called the Greater Los Angeles Association for the Deaf, GLAD in a case for CNN, the news network. This was a very interesting case in terms of equality.

People with hearing impairment in California and wanted to use CNN -- most of which is captioned. They also have however, so-called video clips or snippets or pieces of information when you click on the web you see pieces of stories which is a lot of the we can.

For some reason and there's no good or bad actor in this area. CNN did some things extraordinary well and we disagreed with them on other areas and so did GLAD our client. They chose not to caption those video snippets. Which, of course, made that aspect of the CNN website not usable for people who are deaf. So, again, we had is this protracted long litigation on many different fronts which had some very interesting outcomes. But among the most interesting was one of CNN's central defense in this day and age and that was, CNN took the position if they had to caption their website it would be not be limiting information to our clients, the Los Angeles Association for the Deaf, GLAD, but it would be actually be negatively affecting the network's free speech rights as ironic that sounds, because CNN would somehow have to adjust their content to put in place the captioning. They thought there would be errors and most of which we were prepared prove was incorrect. This worked its way through the exports very intricate and complicated side litigation in California, but essentially what happened was we had a decision from Ninth Circuit like again in California, which was another one of the split the baby.

There's a law in California which protects appropriately the free speech rights of news organizations.

And the Ninth Circuit took the position that even captioning could impinge on those rights, those speech rights of CNN.

However, importantly, the Ninth Circuit also said that captioning would not necessarily negatively affect the First Amendment of the United States Constitution free speech rights of persons with disabilities. What happened was, the Ninth Circuit couldn't make a final decision because it wasn't clear what California law was with regard to coverage of the web. Which the Federal Court was going to look to for guidance. So the federal court asked the California Supreme Court for an informative decision on how they would interpret the coverage of this particular California law the Disabled Persons Act for persons who are deaf. Before that happened the case was settled just a month ago. Case was settled and each side kind of stepped back from what was really hard-fought litigation, and the result was a non-decision so far. It was settled for a variety of reasons.

What happened in the interim, though, was very interesting, remember, I mentioned the Communications and Video Accessibility Act, well, the FCC, the Federal Communications Commission came out with guidance under that law which said that lo and behold video clips were covered under that law so it moot it, it out and we could settle that case. I want to leave time for comments can speak on this all day, but try to keep limited and keep 15 minutes for questions or so. Two other cases I wanted to mention one is very important case of out of First Circuit Court of Appeals, Massachusetts Federal Trial Court. And that case involved the National Federation of the Blind and others against Netflix and the National Association of the Deaf -- the NAD, against Netflix. In that case for the first time ever, the Massachusetts Court the Massachusetts trial court found that independent of a physical link that may exist -- remember in California you had to have the physical link -- the ADA was broad enough to cover the web.

Which in a nutshell was a crucial, crucial decision.

In essence, that case was then settled before appealed and Netflix to its great credit agreed in the settlement to caption over a short period of time all its content that case was led by fantastic attorneys at the Disability Rights Education and Defense Fund, DREDF, and many others worked on that case and for the first time we had a precedent the web was court of with the Americans with Disabilities Act. A very important case, perhaps the important to date in this arena. As this was all going on very important decisions, for example, out of Second Circuit in New York, it was determined in a case called the HathiTrust a group of universities that all the information on Google Books the university had been provide toss students had to be made

accessible to persons who are blind and with print disabilities. A huge outcome saying that under the ADA, Chafee Amendment and other laws and copyright laws, the ADA and other laws were broad enough to make sure that students in college and others who were going to be assigned reading in classes in the reserve room or for seminars and so forth, that you will, which was already in electronic format, was to be made accessible to people who used screen-readers. A tremendous finding. One last grassroots finding. I had the terrific privilege to give you the sense of eQuality. I had the terrific privilege of working with the Quality Trust for individuals with Disabilities a group out of Washington in a case headed by their legal counsel one the best layers I ever worked with. In the defense of a young woman named Jenny Hatch and go to the Jenny Hatch Justice Project website has taken off as a result of this case. Jenny Hatch a one-women with cognitive disability. For some reason and there is not a pro-parent or anti-parent discussion, her parents decided that they wanted plenary guardianship over her life which means control over everything pretty much she did.

Jenny had been working independently, had been living independently, and had been using a cellphone and working on the web and so forth. And they wanted a plenary guardianship which would essentially put her in a group home not of her choosing and only allowing her to see her friends certain times of the day and had take away her electronic lifeline, web and cellphone and so forth. For whatever reason and again, there is not an indictment of parents, this was something that was struggled on behalf of the Jenny and many parents have different views. Case went to a little court State court, Hampton Road Virginia and the case was about whether or not Jenny should be entitled to choose for herself where she could live and work and the technology she wanted to use and to his great credit a state judge said for the first time that Jenny was capable with supportive decision-making that is with reasonable supports to choose how she lived her life and not to face what some might call a civil or electronic death by being cut off from the things she wanted to do. The reason I tell about those series of cases is because they all really have to do with active citizenship. People who wanted to participation participant in community in ways of having it choosing and people denied that opportunity because the web was is not accessible to them either by technologically or by choice of others. My basic proposition, of course, is just like the famous ruling in Brown v. Board of Education, where separate was not equal, a separate web in this day and age is not equal. I do not believe that a separate web kind of a second-class web with all the technology we have, an alternative website, is equal in its form to what

people who use the quote regular website have access to. And this is because of all of the technology advances we talked about. Now this is True also because as I have said of the terrific power in the cloud. Which I want to come back to.

As usual, for many of us and I am sure many of us on this phone there's no rest for wicked. Another one of my joyful responsibilities is I am President of a nonprofit organization called Raising the Floor, U.S. A technologist -- a consortium called Raising the Floor which is a worldwide movement based in Geneva.

To ensure that people had equal access to the web. I have been asked to help organize the U.S. efforts in this regard. In Canada and other countries. One of the projects of raising the Floor it's a big collaborative effort and it would not be right to say that this is an effort where everyone is standing the shoulders of others so I don't mean to exclude anyone else or present me or anybody else are they forefront of the this. One of the major initiatives is called the GPII, the Global Public Inclusive Infrastructure -- in the clouds technological techniques so people with personalize their electronic services so if you go to any device from tablet to phone or different work station you can choose how you want to see, hear interact with the usability and comprehensibility, computer-based thinking to help make the web ubiquitous so people can use it anywhere time. If there were to happen and it's a ways off it will solve one the critiques of the ADA is the pushback that somehow the ADA is forcing special accommodations that ironically like we heard in the affirmative action debate go bow to the negative of the able-bodied community is basically it what CNN said. If they were to caption their website, it would hurt their free speech rights. So what the future holds is this merger of antidiscrimination on the web which we talked about, as well as positive rights, that is because of this personalization possibly for access to web services. In closing, because I want to leave time for questions, we're at point now in our society where there are many unanswered questions to be dealt with regard to web equality and among those privacy and security.

If we have these personalized techniques in the cloud how secured? People with disabilities or people with second language or people cognitive, whatever don't want to necessarily have people to know everything they need, how will secure that? How maintain privacy? How are we going to legitimately compensate the content producers for all the content they produce and they sell? So, for example, there are hard questions coming up like, video description, if somebody looked at Picasso painting -- not a good example probably out of its

copyright, but if somebody were to interpret something copyrighted a movie say and do video description is that a violation of the copyright's rights, even though it might make it accessible to a person with cognitive disability? For example, in Norway, a young entrepreneur decided he was going to crowd source captioning of movies. Crowd-sourcing is a lot of people contributing, like a wiki, to make movies caption. Not only did they shut his website down in Norway, but they fined him for not having the license to the copyrighted material.

In 2040, which is way off, 2040 will be the ADA's 50 anniversary and the CRPD's 32nd anniversary, 25 years from now and it's possible with proper foresight we will have a terrific convergence of devices that will allow individuals to way find -- I was looking at National Public Radio, talking about a pill now a it's a computer you can swallow -- it's antibiotic -- that produces the desired effects, but knows when the blood levels are off. Or diabetics, smart pills, houses and -- which will feed into electronic devices which will change the way we think about a assistive technology and I would bet in 25 years we may not even have terms like assistive technology. Or accessibility or usability if the universalized personalization takes off. For example, taking basic wheelchairs, which are assistive technology. 25 years, everybody might have a form of an exoskeleton and to help people perhaps who have mobility impairments -- Google Glass or other sorts of things, the challenge will be not only to secure privacy and security, but for also many people ensure disability culture and disability identity is not trampled on. In other words, that this is not a cure to get rid of the abnormality in our society, but it is an opportunity to be made available to that people who choose to can participate in fill and equal ways as would anybody else.

So in about 40 minutes, that's what three years of ripping up pages took to write with my editor and had so forth and, of course, built on many years of thinking in this area. It won't be the first and won't be the last and my hope is that in a book like this, with all its gaffes and it's almost outdated CNN settled and other cases resolved, but hopefully it will be a playbook or template to think about why we should value eQuality and particularly for with people with cognitive disabilities poised to build on the pioneering efforts of the deaf community blind community who are the first leaders in this area to challenge a lack of web accessibility. Interesting thing about cognitive disability, of course, is that once you engage cognition you are now talking about content and semantics and comprehensibility, is that different somehow than the mere mechanical translation, perhaps via captioning or screen-readers software. That will raise new concepts about comprehensibility

and usable in our information age. Also, thank you -- and partners on the phone delighted to talk with you more about issues. I have been gracious to be invited to Europe already and across the country to speak about those issues and my hope is that this book also an accessible formats from Cambridge University Press which also has a final chapter what we tried to call a pocket usable -- my hope is it will stimulate dialogue and also help many fine actors in the business and political communities who are working towards this end not just about litigation there are many, many people in had the human computer interaction community and social work community and neuroscience community who are productively making eQuality a reality in the future. Thank you very much I think I left 15 minutes for questions and Celestia and I am delighted if you want to read them to me or have a conversation and do to however you would like.

>> CELESTIA OHRAZDA: Thank you, so much, Peter. At this point if you have any questions for Peter please time them in the chat area. And we will address those as they come in.

>> PETER BLANCK: They are not flying in so far.

>> CELESTIA OHRAZDA: You must have done a very comprehensive overview.

>> PETER BLANCK: You are very kind. There's alternate hypothesis as well. It's a pleasure and I would tell you couple other things -- I see here's a question come in.

>> CELESTIA OHRAZDA: Yes. Sabra.

[See text in chat window]

>> PETER BLANCK: Sabra that's a fantastic question in the book I talk about the lived experiences of many individuals I was involved with a -- one time and it's a pseudonym -- Austin had intellectual disabilities Down Syndrome, and he is 13. He went to his school every day wanted to learn happen IEP and they basically threw paper math books at him and it was very frustrating to him and, of course, it resulted in behavioral issues. He couldn't work in the way they wanted him to work.

What was amazing was when Austin went home at night, of course, like most 13-year-olds he played on the web and he did Facebook and had played games. He got Netflix. And the parents kind of scratched their head and said, if this is not in the IEP this technological opportunity, then what the heck are we teaching these kids? Interestingly like many parents and maybe it was just this one particular teacher or school district I am not quick to judge, because there's so many circumstances which go into these things, but, rather than fight in litigation and going to a IEP meeting as I heard many times before the parents sold their house and moved to a school district had a more inclusive approach to technology. The moral of the story with

regard to your question, which is interest is, there's so much attitudinal baggage in this area and so much to be done in the educational system for low-cost in universal way to enhance the educational students for people with disabilities and much of our research here at the Burton Blatt Institute is focused on exactly that question: How do we work two school districts to better understand why ubiquitous technology, iPads and so forth, cannot be delivered to school-aged kids in the most universalized way? It's out there. And the problem is if we don't do it now it just leads lack of employment and skills, continued segregation so Sabra you put your finger on one of the most important issues, which is chapter in the book and that's about educational issues. I see we have another questions. It is being recorded.

>> CELESTIA OHRAZDA: Yes, and a transcript is available of the session.

She asked:

[See text in chat window]

Her question maybe the same as Sabra, but maybe dealing with higher education?

>> PETER BLANCK: Higher education has to lead the way and unfortunately there are many cases in both graduate and undergraduate education in people otherwise who are qualified are denied access to technology. Another chapter in the book about MOOCs, the Massive Open Online Courses now everybody is talking about.

And although many of the MOOC companies are doing a good job, there are many issues to be dealt with for these millions of people who are going to want to learn through these vehicles. Is it going to be caption? Is it going to be comprehensible? In a math class with symbols or pictures and so forth? How will people with visual impairments see that? And hopefully resolved informally, I wouldn't be surprised in there's action in that area by the community of people with disabilities and particularly as going global. As a University professor and people in glass houses shouldn't throw stones, but even at my own university I think we can always do better. I think accessibility particularly in technology can't be an afterthought, but part of the culture to reach people in broadest way possible, because if we do that we are enhancing the overall academic structure and comprehensibility for people with and without disabilities. My wife who is dyslexic -- benefits. She is an otherwise very smart person smarter than me in business and many other ways. And I think that if she is given that opportunity with easy low-cost technology, she can thrive like so many others. Another question?

I see we have a question from Larry.

>> CELESTIA OHRAZDA: Yes, Larry.

[See text in chat window]

>> PETER BLANCK: Well, first of all it's a question from, perhaps, one of the if not the leading attorneys in United States on web accessible issues. Much of what I have learned is from my collaboration with him and his unbelievable organization, Disability Rights Advocates acknowledged in the book. With regard to that particular question Larry, but I have taken the position going through in very close detail with the WCAG Guidelines 2.0 and isn't it ironic that they should ask can be interpreted to directly address issues for persons with cognitive disabilities.

And point after point there are 12 guidelines and principles and so forth I go through them in great detail and they talk about comprehensibility; for example, understandability and go to cognition. Having said that, and this is taking knowing away from the WCAG -- and Judy Brewer and others have been mentors I think it's safe to say in positive way people with cognitive disabilities have been a little late to the table in the web accessibility area and while the web content accessibility guidelines I would argue are directly accessible to people applicable to people with cognitive disabilities, and, again, I am speaking broadly, cognitive disabilities is very broad term and we have to talk with some specifics, the blind community and the deaf community have been particularly effective initially in addressing these issues in terms of web accessibility. Why? Nothing is simple, but in some ways, screen-reader accessibility, the ability to for a machine to read text and for us to caption a picture is more mechanical in some ways, than the cognition itself.

Having said that, I think that if more focus is given to the -- person with cognitive disabilities all boats will rise, because it will enhance comprehensibility and usability for everybody and in reality -- the real benefit comes from multichannel availability.

Hearing, plus sound, plus visual, perhaps plus signing. That's where the real increments -- from comprehensibility and usability. I had add another point from litigation issue consistent with American Foundation for the Blind and I am not sure if it's NFB's position but at the end of the day, the ADA is really not meant to mandate technical or performance standard, rather, it's meant to mandate full and equal participation and there are many ways to get to 12. My own view is hard to get into the business of mandate of having a court mandate particular technical standards like the WCAG 2.0 and, of course, the court can look to that as guidance or evidence and practice and so forth, but at the end of the day, the law is

really about functional equality, however that may be achieved so as not to stymie technological innovation.

Who's next?

>> CELESTIA OHRAZDA: Yes, we have --

[See text in chat window]

What University do you work for?

>> PETER BLANCK: She may not want to say? We will give her a chance to respond, but I would say as a general matter, that's extremely important and I don't think it's something we have at our own university here and we do struggle making sure everything that goes up is technological accessible. Having said that, one alternative to thinking about that is, why should the online Resource Center be accessible to everybody? Why should the university's Resource Center, as opposed to the separate disability online Resource Center, have information in all accessible formats, as well as information, of course, to basic accommodations, services, other sorts of services, because many times disability is time-limited. So not in any way minimizing disability services office I always thought we could do better job of integrating important things Disability Services Offices do into the mainstream activities of the University. My own hope is he that will happen in the future and we don't need ADA coordinators, again saying not negative about that but we will have life and quality of life coordinators and active student coordinators all of which should be about engaging qualified people fully into the academic environment. And I hope we will see that shift in my lifetime, and it may take a while, because of the deep embedded attitudes, having said, that there's no question, that independent of that universalistic view there are terrific access issues on campus today and I don't want to be Pollyanna-ish about that, but to move in a more mainstream direction in area. How much time? One more question?

>> CELESTIA OHRAZDA: Yes, we have about 3 minutes. We can take one more question. Two questions?

[See text in chat window]

[See text in chat window]

>> PETER BLANCK: Take one at a time. Short answer is "yes." I am thinking where I have had heard it, but more notes in this book than should be, endnotes and footnote with sources like that, for example, it's interesting lot of this work is independent of disability a group researchers, I think, at M.I.T. or Harvard, who are trying to in plain English to create algorithms and computers that can articulate in words speak it verbally or in text, what they see, quote in images.

Which is an incredible thing. How would you computer video describe a Picasso painting? And, of course, this is part of Tim Berners-Lee the semantic the thinking web not in human sense, but how to push the web more so it creates this sort of universal access to things that might be otherwise not accessible to people with disabilities.

I would note, for example, in the book I mentioned that last year, Bill Gates and his colleagues filed for a Patent to do just that.

They filed for some sort of algorithm and I don't have the details of it handy for technology that will also describe articulate what they see in images and the reverse. And this is important, of course, in many learning environments like MOOCs and so forth where you have engineering and math class and they have symbols and chattering charts and graphs researchers human interface working, for example, to have computers articulate in speech writing text or sound, what they see in bar graphs, for example.

What they see in scatter plots. Again the concept is this universal approach to articulating information and what's so beautiful about the technology and the web that's coming is you can see once again, that the meaning is independent from the format.

Why does it have to be that a person uses a scatter plot to articulate some sort of design in the data and by virtue of that format, it would be exclude an extraordinarily brilliant blind researcher from, perhaps interpreting that data? In the future we will see all the boundaries that are crossed which will, of course, enable us now ways of thinking about access to content and meaning and usability which also then goes to the ability to go to plain language and, of course, the real market which is multilingual translations, which is where Amazon, Google, Microsoft, Apple, the future growth for their industries, while there are a billion people around the world with disabilities there are many or billions who would like to have interpretation of things besides in English. Wouldn't it be great to have on your arm and you could look at picture like an "Star Trek" and it would come up. Second question?

>> CELESTIA OHRAZDA: Second question in your opinion what web accessibility for people with cognitive disabilities, be compartmentalized would not have to comply to the web accessibility standards?

>> PETER BLANCK: Again two points there.

Perhaps in a Pollyanna-ish way, I tend not to compartmentalize -- cognitive disability -- if that can be addressed then issues for people who are blind and deaf that's part of that solution.

The second thing I would say, you are talking about enforcement -- I don't remember it exactly with regard to WCAG standards again as a lawyer, independent of fantastic standards that may exist in practice I would articulate that our -- antidiscrimination laws the touchstone of the CRPD and ADA and other laws is not that you must adopt a particular technological standard. Is that you must provide an opportunity for equal and full participation.

And how you do that is up to you, the market. If you're going to present stuff to the market, to the world, then at least there should be an equal opportunity given the circumstances and that's a little lawyer qualifying, but a reasonable chance for people to have access to the same information. I am not a proponent of the separateness in the web. There are very fine scholars who take people to task, sometimes, segregated school or a particular schools are preferred by parents and others and I don't have a qualm with that. My because of the technology it does not make conceptual or sentence sense to have segregated or compartmentalized activities and I believe we will see that in the future. Thank you, Celestia. You did a great job. There are many more questions and we could go on and on. But I have to walk the dog at some point I guess.

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