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## Technology: Are You (And Your Vendors) Ahead Of, Or On the Curve?

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# TECHNOLOGY: ARE YOU (AND YOUR VENDORS) AHEAD OF, BEHIND, OR ON THE CURVE?

## BEGIN TRANSCRIPT\*

**KEN HIRSH:** We have a tight schedule this afternoon so I'm going to go ahead and start our panel on Technology and some of the challenges in using it. I'm Ken Hirsh. I'm the Director of the Law Library and Information Technology at the University Of Cincinnati College Of Law, and I'd like to give relatively brief biographies of our panelists so we can move into discussion.

Sitting to my right is Sharon Krevor-Weisbaum. She's a partner at Brown, Goldstein, and Levy. She received her JD from the University Of Maryland School Of Law, and she represents individuals with disabilities and their families who require services or support from the state or federal government and for those who require accommodations from employers or service providers. She also advocates for special education and support services for children and their families and for developmental and mental health services for adults. Sharon serves this council more in an advisory capacity to disability advocacy organizations throughout Maryland and is often asked to speak at annual conferences and training programs. She has served on the faculty of the National Leadership Consortium on Developmental Disabilities at the University of Delaware and speaks regularly for the Maryland Association of Community Services. She and her firm represented the National Federation for the Blind in its action against Arizona State University regarding mandated use of the Kindle DX and that suit was resolved by settlement about a year ago, and she'll be telling us more about that.

Sitting next to Sharon is Gary C. Norman, an attorney, mediator, and founder of Norman Access and Conflict Resolution Consultants Group. He is also a commissioner on the Maryland Commission on Human Relations,

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\* Panel: Kenneth Hirsh, Director, Law Library and Information Technology, University of Cincinnati College of Law (moderator); Sharon Krevor-Weisbaum, Partner, Brown Goldstein Levy LLP; Gary Norman, Master of Laws student, American University Washington College of Law; and Bryan Rapp, Assistant Director of Technology, American University Washington College of Law.

having been appointed in January 2011. Gary is a former president of the Maryland Area Guide Dog Users, an advocacy and education based non-profit that he established. He received his JD from Cleveland-Marshall College of Law and is a 2011 candidate for a Master of Letters of Law with specialization in health law right here at Washington College of Law. He has published several works, including but not limited to a book chapter on the Law of Service animals. The American Bar Association published this book.

And at the other end of the table is Bryan Rapp who is the Assistant Director of Technology right here at the College of Law where his responsibilities include managing and developing his websites and related applications. He attended American University in the School of Public Affairs and has worked here at the law school for the past six years. Bryan has been developing websites for over 15 years with a strong emphasis on the academic sector as well as on web standards and accessibility. He's presented at the Center for Computer Assisted Legal Instruction or CALI's annual conference. And Washington College of Law's home page, for which he's responsible, was recently noted among only eight law schools for a perfect score of measured accessibility elements under section 508 in the survey on top ten law school home pages of 2010 recently published by Jason Elseman and Roger Skalbeck.

I'm going to be asking some questions but generally the speakers are free to talk about their topics and we'll try to take some questions from you, but if we should run out of time the speakers have agreed to stay beyond our time so a little later this afternoon if you want a chance to meet with any of them you certainly may.

So let me start with Sharon. Sharon, tell us the crux of the National Federation for the Blind's complaint about higher education's mandatory adoption of e-readers such as the Kindle.

**SHARON KREVOR-WEISBAUM:** All right, well thank you for having me. It's a pleasure to be here. So our firm represents the National Federation of the Blind. I say "of" and not "for" because it is really an organization of blind members. I will talk about the Kindle and suits that I can talk about any other law suits I'd be sitting at lunch and I know our firm might not be the most popular with some of the universities here because of some law suits that are pending. But let me explain where the NFB is coming from.

The education is drastically changing as everyone here knows and you all know more than I do about how technology is changing education at the college level, at the K through 12 level, and obviously at the graduate school and law school levels. The way that we are interacting with

students, the way students access library materials, how they access course materials, it's all technology. We came upon college students at various schools who could not access the curriculum because of the technology. That's why the NFB has been so aggressive in the last two years because if the technology is inaccessible to people who are blind and students with other disabilities, the blind are going to be further and further behind. And the NFB feels passionate about this.

So in 2009 members of something called the Reading Life Coalition, which includes the NFB, it also includes about 26 other disability life groups representing people with various types of print disabilities sued Arizona State as well as filed complaints to the federal government. From those complaints and this affected the e-reader, the Kindle, because schools were using the Kindle for classes. And at that time, the Kindle was not an accessible product. So that meant the students that were going to be in those classes who were blind or had other vision disabilities weren't going to be able to access the materials.

The Department of Education and Department of Justice investigated the complaints that we filed and reached settlements with all of the schools. And the settlements require or prohibit schools from purchasing, requiring, recommending, or promoting the use of any e-book reader that is not fully accessible to students with vision disabilities. The point of these law suits is to push the market of these products forward. The customers are students and the colleges, and the K through 12, and the graduate schools. That's why we are going after the schools because it's the schools that can put the pressure on the developers to make accessible products.

I was in a mediation that represents two college students and we have a complaint at the Department of Education office of Civil Rights because those two college students cannot access any math course at the college because it's all online and the online program that the college has is inaccessible. Not only was it inaccessible, they told the students they couldn't make brail books. They couldn't give them a brail textbook. That means my clients, these young students, could not take math class because it was totally inaccessible. We are trying very hard to work that case out; if not it will be in federal court.

**KEN HIRSH:** Sharon, since you mentioned course materials are major course where vendors such as Black Board working hard to meet accessibility requirements?

**SHARON KREVOR-WEISBAUM:** Black Board, yes. The learning management systems, the two that are involved, that has gotten the fall out in the press against Penn State because of a lot of systemic access barriers.

But one of the access barriers that our clients found was that learning management system was not accessible. So students couldn't talk to their professors, couldn't do collaborative work that other students could do. Black Board, and there are a few others, is a learning management system that is accessible. They worked hard with the NFB technical people to make that product accessible so that I think their latest version, yes, is. So there are alternative accessible products out there. What we're trying to do is through the market pressures get all of the products or as many as possible accessible.

**KEN HIRSH:** Gary, how does the ADA affect organizations which impose examinations on credentialing requirements such as boards of state bar examiners and the national organization that they use their products of?

**GARY NORMAN:** I would like to comment and provide my thanks to Associate Dean David, Myra, and to all of the students here who I found to be very disability friendly and very easy individuals to work with. I also express thanks to our staff and our wonderful logistical people and volunteers here today. And thank you to my fellow colleagues Sharon, and Bryan, and Ken for speaking with me today. I would only build on Sharon's remarks. First, often costs for assistive technology are much higher at the rear end than they are at the front end. So we need to continue to push the market in the correct direction to engage in what people could more eloquently describe as universal design.

Sharon has worked extensively on the issue of bar exams. To answer Ken's question, my colleague and friend, who has been a deputy of mine on many projects, Joshua Freedman, and I have an article coming out in the Maryland Bar Journal on the issue of bar exams. I think the sentiments of our article is that, obviously, every person disabled or not has to meet the criteria for the bar exam. But the problem is when the bar examiners believe that they can dictate what accommodations law students with disabilities receive. There seems to be a certain illogic that is put forward by the bar examiners. They seem to posit that candidates have to utilize a human reader or utilize this very limited type of technology they prescribe. It's usually not the assistive technology often utilized by the student during law school namely screen readers and a type of enlarger software called ZoomText. And we believe that a fair interpretation, I think, Sharon you could correct me if I'm wrong, the ADA should be read liberally in that context to ensure that people can kind of use the accommodations that they have the best experience with because that ensures meeting the ADA's standards of accessibility. Sharon, do you have any comments on that?

**SHARON KREVOR-WEISBAUM:** Well the one thing, I guess, I would share is the standard that just recently the Ninth Circuit upheld which is a standard that is in the Justice Department regulations on testing. Now this is like private entity testing that the examination has to best ensure that when the examination's administered to an individual with a disability that the results reflect the individual's aptitude and achievement rather than reflect the individual's disability so its best ensure standards.

So in the case that my colleague's talking about Mr. Elder needed screen writer normal accommodation that he always uses to take tests and he doesn't use human readers. And so that was upheld by the ninth circuit because that best ensures that you're testing the right thing.

**KEN HIRSH:** Let me turn towards legal education for a moment. Certainly, those of you who've been to law school will recall that in all 1L classes and many upper classes the one evaluative tool used by the faculty is an end of term comprehensive exam. And despite the presence of the honor code or a variant of it at most institutions law schools when making the move from the case ten years ago, when taking exam by computer was the exception, to today when taking exam by computer is the norm, would not let that happen until they could have specialized software that would virtually lockdown a student's computer during the exam. Now for any of the panelists what is your experience on the use of that software and there are basically four manufacturers of this software in the United States with relation to accessibility issues? Has there been an issue or is that software relatively friendly?

**GARY NORMAN:** What I would say is that with regard to my exams, the staff and I have worked out a system by which the professor provides the exam materials to Myra and to David and then that material is put on a flash drive or a junk drive as it's called. I utilize a computer that's equipped with JAWS. We've tried to avoid using the exam software I think you're talking about just because it seems to have some accessibility issues with JAWS.

**KEN HIRSH:** Bryan, did you want to add something to that?

**BRYAN RAPP:** Yeah what usually happens is after the student takes the exam we work with the exam software manufacturer and they reformat the exam so that it looks just like any other exam. So the professor doesn't know that the student took it in a different method than any other student.

**KEN HIRSH:** Yes, and for those who also may not remember

anonymity in grading is a key component of law school. And one would think that using computers would certainly support that assuming a faculty member hasn't had enough exposure to a particular student's writing to recognize the handwriting at exam time. Bryan, let me continue with you. Tell us what's involved in making a website that's compliant with section 508?

**BRYAN RAPP:** Well there are quite a few things that go into it but now a days a lot's shifted in web design trends. A few years ago, the idea was just to make something that looked right on your screen. And in the past few years, it's shifted towards semantic markup, making a page that actually has some meaning to it so that your headers are actually headers. And this isn't just for accessibility reasons but because Google, and other machine reading type services, look at the page and they aren't viewing it on a screen either. They'll be reading that same information. So I think that's benefitted accessibility quite a bit. One of the main issues is images on a web page. You can provide alternative descriptions for any image that you see on a web page. So somebody who doesn't see images or has a screen reader will see that text instead of the image. A lot of websites skip over that fact so that when somebody comes to it with a screen reader they'll get a blank image. Major other issues right now are video. Video's a difficult subject to tackle with accessibility. Google's made some good advances with You Tube. Right now, they have some automated voice to text captioning systems in beta. It isn't quite perfect yet, but they're making some great strides there. Other accessibility issues are forms are a major issue. Traditionally you kind of lay it out so that looking at it on a screen you would see a label next to a form field, but in the html markup a lot of times they were totally separate parts of the page so a screen reader wouldn't necessarily know which field went with which label. But if you start from scratch, that way you can design it so that forms are associated with particular labels in particular fields and that can make a significant difference.

**GARY NORMAN:** I want to build on Bryan's comments. Another issue that I think any person who's visually impaired experiences, not only law students, are PDF files. It seems to be that there needs to be some education in how technology experts structure PDF files, because for such files to be accessible, they have to be built on the front end like I was talking about. PDF files are improving with the later versions of JAWS and Adobe, but there's still some room for improvement sometimes.

**BRYAN RAPP:** Yeah, Adobe made a commitment to PDFs and to flash

a few years ago to try and increase the accessibility of both of them. Just to give you an example, usually a document that comes out of a word processor and converted into a PDF will generally turn out better than a lot of PDFs that are generated via scanned in documents which a lot of times they aren't even OCR which is optical character recognition where it looks for the letters in a document. So if somebody has that type of document with a screen reader, they're just going to get an image, which has no associated text with it.

**SHARON KREVOR-WEISBAUM:** I was just going to comment that for those of you who are involved in let's say web design issues. One thing that I think lots of institutions do is they forget to have a person with a disability, if we're talking print disability or whatever the disability is, is be part of kind of that testing program so that the blind individual tests which you all think is an accessible website. Because so many times sighted people are testing it, and they are just not able to pick up the glitches that the blind tester picks up as soon as he touches the program. So if that can be built in on the front end on software, and we've been told kind of fixing it afterwards, fixing the building and having to put an elevator in or the ramp in that no one put in, obviously, it's the same concept. So on the front end when you're designing whatever technology we're talking about I think having people with disabilities that would be affected by this really should be part of the testing.

**BRYAN RAPP:** And a sighted user can determine probably about ninety percent of the problems themselves just using a text based browser. Lynx is an older one. A few years ago we had an intern working with us and he was designing something, and I realized quickly it wasn't going to be accessible so I told him to spend the day browsing the web with Lynx so he could see the web in text form and that was kind of an eye opening experience for him to realize all these little holes add up to being a giant hole.

**GARY NORMAN:** And I think kind of building on Bryan, and Sharon, there's something to be said about kind of the law part to resolving issues. As civil rights are done on a day-to-day basis, it is about building relationships; I congratulate the law school for its commitment to accessibility. I think that report that Ken mentioned is accurate. My experience with what we call MyWCL has been quite positive as a blind user. So really, the staff should be quite commended at the law school. And my experience with both the law school and at work is it really requires a certain kind of day-to-day personal contact. A lot of people are really open to learning some of these issues. A very collaborative process



on both ends is required.

**BRYAN RAPP:** And just to explain what MyWCL is, it's our learning management system/announcement kind of community system, but it's built on Microsoft SharePoint. We're on 2007 right now. So even the large vendors like Microsoft are taking great care to try and make their products accessible too.

**KEN HIRSH:** To any of the panelists and all of you what besides websites are some of the other challenges of ensuring accessibility to reading materials to law students?

**GARY NORMAN:** I think, maybe, I could address that. I could give a brief history of how it's changed over time just as our society has changed technology speaking. I should back up. Like Isaac who spoke this morning, I have probably a similar condition called RP. But essentially, usually people lose their vision over a period of time. So for me as I progressed through grammar school, high school, and post secondary education, my needs to information technology and access to information evolved over time just as technology has. And I started off when I could see much better with a very kind of large print. It was probably a sixteen, eighteen font. But by the time I was in high school, and unfortunately I didn't always know my needs to become a good self advocate as Andy and a lot of people talked about this morning, I tried to press that kind of access way longer than it was really beneficial. So then, I progressed into using audio tape, which was state of the art then. I would acquire, and I do still acquire, audio books from organizations like recording for the blind and dyslexic. And then, as I noticed as I got into college, there was this really novel new thing called JAWS, which was a few years old by the time I started college in the early 90s. And I was open to a whole new world of the computer industry and some of the blind people who were leading the charge for access to computers. By the time I was in law school I was facing the issue, as I think many law students with any kind of reading challenges to print or standard print information, I needed to use and deal with the publishers to get CD's or books on CD. Now we're here at MyWCL, and at the law school, I'm using PDF's, trying to access documents from Westlaw. I am utilizing a lot more interactive type of reading materials.

**SHARON KREVOR-WEISBAUM:** I think one of the things I think people sometimes forget is you can look at the website at a university and they can make the website accessible. But then, what is posted on the

website and let's say you're at a college and there are all these different departments so that all sorts of people are posting, well the posting content could make it an inaccessible experience again. So what we are talking to universities about are guidelines for not so much who can post but for all people that do post resources for those people because many of them are professors who wouldn't know anything about accessibility technically. Well, I call them clickers. I think you told me a better name.

**BRYAN RAPP:** Their formal name is personal response devices. People commonly call them clickers thinking back to the thirty years ago to mechanical remote controls. Of course, today nothing clicks.

**SHARON KREVOR-WEISBAUM:** But these personal communication devices, clickers, what clickers are used for all over the place and whether they're used in law schools I'm not sure but certainly in undergrad. It is attendance, a way to know if a student is there and it's also a way to take pop quizzes, it's also a way to answer bonus questions, and adjust whole participation. So the students, and there are accessible clickers on the market, but there are also inaccessible clickers . . . . Well, if the blind student cannot access it then they can't participate in the same way . . . . We've had faculty who can't access it because it's touch and it's not tactile interface so they need to get a helper. What other places are we seeing? The law system itself has been very problematic in places. So those are some of the issues that we have seen and we're trying to work with universities to address.

**BRYAN RAPP:** And just add one to your list digital signage, which is used in a lot of places. If that information isn't posted somewhere else that's accessible, part of your audience may be missing it completely.

**KEN HIRSH:** Let me ask the panel this question and I'm phrasing it on the fly so forgive me if I don't quite get it right. It's in regards to law school pedagogy. Going back to the Langdellian case book and Socratic discussion, which is, everyone reads and listens and talks but that's it. So if you can get your text in form you can listen to, the professor's not showing you anything, you're supposed to be listening to the professor. Are there changes in current law school pedagogy that are making it more difficult for students to have accessibility to what they're supposed to be learning? Anyone?

**SHARON KREVOR-WEISBAUM:** My colleagues.

**BRYAN RAPP:** I think to some degree, there are still some professors who teach in that method, but there are a lot now that we see using multimedia. Watch this video clip. Tell me what you're seeing on the screen. Unless they provide an explanation of what's going on, on the screen, a blind student's not going to be able to contribute to that discussion. I mean I think that's just a major one as people think they're adding a little bit of pizzazz to their class. But in a lot of ways they may not really be adding that much and just adding hindrances for some students.

**KEN HIRSH:** And going back to clickers, the most common way to use the personal response devices is that the manufacturers build their software to work with Microsoft PowerPoint. So the faculty member will build a slide show with the questions built in and those questions can range from simple ways to take attendance, to a pop quiz, to just a gauge whether the class is understanding the material. So at that point, it becomes incumbent upon either the professor or the professor's assistant if they're aware that there is a person with sight issues in the class to add an audio component to the slide show, which will then enable the student to understand what the contents of the slide are. But, again, the faculty members or the assistant building the slides has got to remember to take that affirmative step.

**GARY NORMAN:** And I think that's all true Ken. I do think one issue that I've experienced is sometimes, professors hand out paper-based materials, forgetting that I'm visually impaired. So I think it requires a little bit of self initiative on the part of the blind law student. Law students with disabilities need to build a relationship with their professors. They need to pick out really good professors who are very disability friendly. I've been very fortunate here the director of my component of the program is very open to learning about these issues. So when that happens, I have to express e-mail me the materials.

**KEN HIRSH:** That raises a good question. I wonder if any law school—and everybody uses student evaluations of faculty—has a disability accessibility question that they ask students to complete regarding their faculty and their classes. Or if they don't, would it be worthwhile adding it?

**GARY NORMAN:** I don't think we do have that here and if we don't, I would encourage it.

**KEN HIRSH:** I'm unaware of anybody who does currently. But not to

say there isn't but I've not seen it.

**SHARON KREVOR-WEISBAUM:** You know I wanted to say accessibility is actually the hope and I think it will be with a little more pushing. Technology can open up and be a mainstream tool for people with disabilities as long as it's built correctly on the front side. So, for instance, I just love the fact that technology is being implemented at every level of education from the kindergarten through the medical school, law school. Because then you don't have this separate system to go to the disabilities services office and rip apart books and get them scanned in and that whole separate process of getting your books late because it's always been separate and unequal because it just isn't as good. Technology opens the possibility for being mainstream and totally equal. So I don't want anyone to think that the NFB is down on the technology. They love it. The members love it as long as when you can get the developers of the technology with the program to make sure that it's accessible. There are solutions to all of it. It's just identifying most people think that way and so it's a culture shift.

**KEN HIRSH:** And let me ask you about that. We know that litigation is the stick for the developers. What are some of the carrots to get them thinking about it at the front end?

**GARY NORMAN:** I think seemingly there could be an argument that it costs lesser on the front end. There may not be enough of this, but we certainly find avenues in the tax code and different kinds of financial incentives for companies to think about universal design much more proactively than they do sometimes now. Although as Bryan mentioned there are a lot of large corporations like Microsoft that really are and have shown a great interest and a great dedication to moving much more positively forward on these issues.

**BRYAN RAPP:** Yeah, I think some of the biggest problems we find are in the smaller development shops where researchers are very limited so they tend to whittle down which features they'll support fairly quickly and unfortunately accessibility is often times one of those features they don't think is important enough. So most people are asking about it making it a requirement to get certain types of software; it really is going to continue to be ignored. So you can use money in that way too. I'm not going to buy your software. I'll buy your competitors because they are accessible.

**SHARON KREVOR-WEISBAUM:** Which is what, I think, we've

been pushing. Google and Microsoft at the K through 12 level really in the last 12 months are giving all three products to schools. Now why at no additional costs to the schools? Because they want to be in the little child's brain, and then the family, and then you start buying all the apps. They have business reasons. You're going to hear a lot over the next week because they're not accessible. It's an issue and its looming everywhere so I think you'll hear more said, but these are like the calendaring, the g-mail, the Google docs. Collaborative learning that's a big deal these days from what I understand as far as different ways that teachers are teaching. I'm not sure about the law school level but certainly the undergrad so the documents are shared and you can write beautiful things among classmates and they can share them. That's great except if you're not able to access it. So that kind of learning is tremendous and we want. We just want to make sure that everyone can participate.

**KEN HIRSH:** What about outside the classroom in offices such as career services, and professional development, and in other offices where do you think things stand in regard to technology and the disabled in law schools?

**BRYAN RAPP:** I think a lot of the career services do okay because they're dealing mainly with databases in a similar way to the law libraries. Events, it does get trickier. One issue we've tried to tackle here is sometimes people send out e-mails as image attachments because they have a nice poster but they don't provide any alternative text. So somebody who can't see that image either because they're blind or because they're on a mobile device that doesn't show images gets an empty e-mail. So those sorts of educational hurdles, I think, we have to get people on board on that. It's not so much that they can't do it. It's just that they don't necessarily know that they should do it.

**GARY NORMAN:** I agree with Bryan.

**KEN HIRSH:** I thought for a moment—I accidentally did this earlier today, but I'll do it on purpose now. For those of you who haven't heard what a particular device's screen reader might sound like I've got my iPad here, and I will for a moment let the—Apple calls it the voice over app—read you the introduction I read a little earlier today, and we'll listen to what it sounds like. And when you're tired of it, it seems to take me many steps to turn it off so bear with me. So first, we get to a third screen and turn it on. And the speaking rate's rather fast although I do have it set for nearly as slow as it will go. Now let me go back to that introduction.

(Plays introduction).

Now back to that sorry. This is a sighted person having this difficulty so you can image it's going to be more complex for somebody who is not sighted. Now we'll try again with the introduction.

**SHARON KREVOR-WEISBAUM:** And that's slow?

**GARY NORMAN:** I would agree. I would agree.

**SHARON KREVOR-WEISBAUM:** That's very slow. You can adjust the speed.

**GARY NORMAN:** I'm getting older so I seem to read less fast than I used to.

**KEN HIRSH:** So now, I'm turning it off though.

**SHARON KREVOR-WEISBAUM:** And remember for instance a blind lawyer in my office so he sits a couple doors down from me, he uses JAWS. Now he has a headphone on and plugs it in so I never hear it. That's what happens. But that's how he does all of his legal work.

**GARY NORMAN:** A supportive spouse is critical; whether it is a spouse who reads materials or a spouse who understands her blind-attorney husband occupying all off his time on the talking computer.

**KEN HIRSH:** I'm going to ask if any of you have something you wanted to add before we open up for questions.

**SHARON KREVOR-WEISBAUM:** I'll add one thing. There was a—it's dated June 29, 2010—letter from the Justice Department and the Department of Education office of Civil Rights it's a letter that went to all university and college presidents. You can get it on their website or you can e-mail me and I'll send it to you. But it came after the Kindle complaints were settled. But it's a letter that details under the law all about technology and obligations of public universities, private universities would be my contention under DADA in section 504 if that would apply not just to the colleges, but to the school districts, to all educational institutions. So I think it's a very helpful letter to read, June 29, 2010 from Perez and Ali.

**KEN HIRSH:** Let me ask you a question since you mentioned that letter. There is a list of law school technologists called the teknoids list and when that letter was released there was some I'll use the term pushback even though that might be a little strong, but have any of you run into pushback in either the technology folks at law schools or non-disabled users pushing back at the need to make accommodations?

**BRYAN RAPP:** Well I can only speak from the technology side. At least entirely for us I don't think we've had any sort of feelings of frustration, or anger, or anything about having to do this. It's just part of providing service to the students no matter who the student is. From the students I haven't really heard any complaints about why is this student get to take the exam at a different time or anything like that because under certain circumstances they're also offered accommodations. If they have too many exams in one time period, they're allowed to spread them out too.

**GARY NORMAN:** I would agree with Bryan. I think all the students here, if anything, have been truly curious about assistive technology like JAWS for instance type issues. And like I said, I would say the majority of professors here are pretty eager to learn about the issues. And it continues to need some of the personal and relationship type building. At work, sometimes it has been a mixed bag, but I think this is true with society. A mixture of tools is required, whether that is Sharon's more legalistic approach or whether it is a more personal approach, or perhaps somewhere in between. But hopefully over time I've educated some people at work about what accessible issues are and how I need them to do my job as a blind attorney.

**SHARON KREVOR-WEISBAUM:** And the only pushback that we've seen is from the institutions is saying that the products aren't accessible so what do you want us to do? And what I want you to do is be the customer and push the market. That's what we want you to do. That's why we're looking for procurement of the government and the local school districts whose spending millions, and millions, and millions of dollars on technology to put it in their procurement specs as a requirement like other conditions.

**KEN HIRSH:** Yes.

**CARA FOERST:** Hi, I have two . . . (Overlapping voices) . . .

**KEN HIRSH:** Could you identify yourself?

**CARA FOERST:** Sure. I'm Cara Foerst. I'm the Dean of Students at Seton Hall Law School. In relation to pushbacks, I have two scenarios. I'm just interested in the panels comments or if anyone else here has dealt with this and come up with good solutions. I don't know if anyone has experience with the Smartpen. I have one student who was granted use of the Smartpen for recording lectures as an accommodation for his disability. I have professors who do not and will not record their classes unless it's been specified that recording is an accommodation for disability. I have other students with disabilities who've now discovered the Smartpen either through this student or on their own and are not permitted to use it in class. While the disability support committee has advised me that these students don't need it as an accommodation, it would be helpful. So they haven't gone as far to say it's something that we have to provide as a reasonable accommodation, but they said oh it would be really helpful for them. And I can't get these professors who don't want to be recorded to agree to be helpful.

The second thing is professors who ban laptops in the classroom. I have two students who use CARP—one for a learning disability, the other for hearing impairment. And unfortunately both of these situations have come up in required courses with a property professor does not allow laptops in the classroom. So the person who uses CARP has been singled out as the one person in class with a laptop. A person who's otherwise remained anonymous and hasn't really had to identify themselves as a person with a disability to his or her classmates and really wants to remain anonymous but it just wasn't possible and the teacher wasn't willing to be flexible. Her solution was, well, why don't we say that everyone in the class could have access to the transcription that CARP provides to the student, but that was a violation of a licensing agreement with CARP so we couldn't do that. So I'm just curious if anyone had to solve similar problems, or feedback, or anything you guys can help out with?

**GARY NORMAN:** I think my experience in law school round one, as I like to call it, when I got my JD at Cleveland-Marshall; I was much more likely to tape record classes back then because I was not utilizing a laptop with JAWS on it. I would record many classes or I would endeavor to record classes. I did encounter professors who were just truly ignorant of the law and not decent people to deal with. But the majority of the law students and the professors at CM were very great to deal with. Now here at Washington College of Law, it seems, not only in terms of disability, professors are a little more amenable to recording classes for a variety of reasons. When people miss class, or if a class is rescheduled, recording of



the classes seems to happen frequently. It seems like the professors deal with the IT Department on that issue. Correct, Bryan?

**BRYAN RAPP:** Yeah. We see a few different, I guess, opinions on recordings. There are some professors who if anybody requests a recording whether they're absent or not then, they'll make that recording available to the entire class. And there are other students who will work with student affairs so that if it is an accommodation request, only that student gets access to that recording. And then we have other professors who record every class for every student and they're open to it. But for the professors that don't want to be recorded in general especially in an environment where you have that recording device in the room that is especially tricky. Here we're fortunate that a lot of the rooms can be remotely recorded so students wouldn't necessarily know that that particular session of class is being recorded at that time.

**CARA FOERST:** That's what I was thinking.

**KEN HIRSH:** If I could offer, I don't know if these work. I haven't seen anyone try them but very successfully but with regard the situation you mentioned with the Smartpen if you think upon the rationale of the professor you might be able to persuade the professor and student to have a written agreement where the student expressly agrees to only use it for my own personal use and I promise not to release it to anyone else which I think most faculty who object to recording are afraid of potential later use of the material especially if it's a bad performance day. Likewise, they legitimately have copyright claims to everything they're saying in the classroom so they might be concerned about that as well.

The laptop issue is just frankly a pain in both non-disabled and disabled applications. There are some faculty who just refuse to do it or say why can't the technology folks turn off the wireless. But it's so much broader as a technologist for many years at Duke. We were asked many times, "Why don't you shut off the wireless?" And we said, "Well, to begin with it'll be expensive because they don't do it anywhere else on campus this way so you'll need new equipment." And we would say, "Why don't you tell your class to shut the laptops or don't bring them in. You're the professor. It's your classroom." But when you come down to them that, obviously, doesn't address the situation where there's a special case where they will allow the disabled student to use a laptop and not anyone else which then also raises in my mind, and I'm no expert on it, but whether that creates a FERPA issue by identifying that student's disability in front of the whole class.

**AUDIENCE MEMBER:** I want to try a further response and then I have a question or observation for the panel. We've had a similar issue and I would say fortunately and unfortunately a student in this situation ultimately decided to forgo use of the laptop and you can see both sides. It may be both ways for us . . . and we had it taken out of our hands. One of our proposals had been, and I don't know if this would work in this case, would be to strongly suggest if not tell with the support of your university council that the professor is ordered to expand the use of laptops in that class by one or two meaning so that the CARP student's covered. The student who's looking not to be ousted is covered and then one or two other students totally at random, at your choosing, are also entitled to have a laptop. And that way that student has the protection. It's not going to the entirety of the class. It's kind of a compromise to some people with their professor and I think this is also kind of saying I'm not sure . . . but there's some language that might help to some degree, so another thought.

I'm listening to some of the comments. I think I'm torn by kind of something that has come up. Bryan and Gary both mentioned our use of exam software. We've generally been very happy with the software in particular because it resolved one of our issues in working with students with disabilities which is that for a number of our faculty in the absence of the exam software they're going to go back to handwriting only and then we have the issue with students who cannot for a number reasons take their exams by hand. We've been fortunate with the software we use that there is a work around when you need it, but that gives us the out to not have to force a vendor at the front end to take a harder look at the inaccessibility. And so I say this in part, as an observation and I can see the other folks on the panel having good responses to it, should we be taking a more line in the sand approach . . . ? Now this may answer the question . . . or find some other way to resolve it. Should we be comfortable in the fact that the work around is not available to the students and we think that it's not and it certainly is working for us in terms of the balance with the other students who might be affected as a consequence.

**GARY NORMAN:** The two law schools that I have experienced reasonable accommodations, the typical response is to let the disabled student not utilize a software. The exam will be taken at a time different from the other students. They will also have the accommodation of extra time for the exam. So disabled students not likely to sit in the room at the same time as other students.

There is no one in the world more sensitive to an issue with their computer than a disabled law student taking a make or break exam. So in

support of disabled students, one side of me argues, push the vendors. The other side of me inquires will this vendor or organization introduce some new variable that is likely to screw up screen-reader software. As such, it must be insisted and importuned likewise that any software or hardware innovations be thoroughly tested to ensure it is accessible to people with disabilities. On the other hand, the testing is the part that is difficult to address and to push towards robust accessibility. It has been argued there is a small market.

**BRYAN RAPP:** And I think because of how that software works, it's especially tricky because any sort of accessibility would have to be built into the software. It couldn't rely necessarily on JAWS or another program running because those programs prohibit those sorts of programs from running. And then you're also dealing with the cross platform issue, which is big, a lot of these software companies don't support Macs. So now quite a few of them do. Any support they build in would have to probably be supporting both operating systems; both Windows and Mac's let alone Linux or other operating systems.

**SHARON KREVOR-WEISBAUM:** I would think that I mean we're usually not in favor of work arounds because it doesn't change behavior. And many times, although you said it's fairly simple on this one, but many times work arounds aren't good for really kind of high tech people. But the English major who's now in law school who's not very techie has a harder time. I know there's obviously competition among law schools just like with anything else, but are there coalitions that could work together to put that market pressure on these limited number of companies? In the overall, would they change their plan so that you could get an accessible product by year three? That's still a lot of pressure especially in a lot of law schools so I have not actually . . . I know that these restrictive exams take this software, but I haven't had a client.

**GARY NORMAN:** I agree with Sharon. To be a strategic advocate, one has to work both ends of these issues. I think the perspective of Sharon is clearly different than an advocate. Working in the context of all the various cross populations of disabilities and their varied views is critical. So if you could work through that coalition and do some capacity building with the industry on the one hand but also try to be proactive in working with the students to try to meet their needs, I think that is the best approach for you.

**KEN HIRSH:** Gary, let me ask you a question that comes out of my

own personal ignorance as to what it's like to not have sight. When you're typing an exam, the act of typing doesn't require sight because you know what the keyboard is. But are you trying to get feedback just like I would want to go back up and see what I typed the sentence before? Is that the kind of thing you're dealing with or is it more than that?

**GARY NORMAN:** I do think that is a good question. What you are inquiring about and asking about is a pretty broad issue Ken. Once you get the access to the information or the technology, basically, this is the very, very beginning starting point. With JAWS and I imagine many other forms of assistive technology, a huge component is addressing how do you use this software, or to know what functions do you need to learn to be a good and a nimble user of that technology. And the NFB, as well as many other organizations who are involved with issues concerning accessibility to technology, the ACPB, for instance, they all would say there really needs to be much more proactive training. And I would say it's been a real learning experience for me how to use my own assistive technology because JAWS requires very specific types of keystrokes. For instance, I have to use a down arrow and the alt key to read the sentence, or I can do a certain function to read a whole paragraph, or I can have JAWS just set up maybe to read a page at a time. Likewise, when I'm typing, I prefer to hear every letter as I'm typing it. There's a various range of ways you can have JAWS read information to you.

**KEN HIRSH:** And it's important to remember that a law school exam is a two step process in that the text of the exam has to be made accessible as well as the student then being able to have a means to record and review the answer the student's writing.

**SHARON KREVOR-WEISBAUM:** And then there's, obviously, I think a lot of the students would have extra time. I know that my colleague who just took the California bar on top of using JAWS and the California bar's three days so he took six. I mean he gets double time.

**GARY NORMAN:** That was my experience. I sat for the bar exam in Ohio and in Maryland over four days, five days.

**KEN HIRSH:** And we have just enough time for our last two questioners.

**ANNE MOELK:** My name is Anne Moelk. I'm from William Mitchell College of Law in St. Paul, Minnesota. I haven't had any complaints from

our students but I'm just curious what the feedback or the impression is of the accessibility of the legal research sites like Westlaw or Lexis?

**GARY NORMAN:** That's been I think an evolving process. Lexis and Westlaw I think would both officially say that they're committed. Westlaw, I think from the experience of many blind attorneys, has, at least back in early 2000, shown more commitments because they created a website specifically for blind attorneys. There is a perception or concern that the website geared towards blind attorneys is not as populated with up-to-date information as is the regular Westlaw site. And we're doing a journal on animal law and ethics so we had a training for our editors yesterday. I met with the Lexis representative and she was kind of describing to me that they're really taking some more steps at Lexis to make their website accessible.

**KEN HIRSH:** Yes ma'am.

**ALLISON NICHOL:** Hi, my name's Allison Nichol and I just happen to be the person from the Justice Department who did the Kindle work with the National Federation and Goldstein's group. This isn't really a question so much as it is sort of a solicitation for information. To the extent that there is a lot of kickback or pushback from the letter that's more serious than grumbling over at the coffee machine, or to the extent that you know that either e-reader technology or other kinds of technology are being adopted as substitutes for textbooks or other methods of teaching, the Justice Department has a critical interest in knowing about that. We really see emerging technology in the educational setting as well as online learning courses to be a critical emerging issue for us. And so to the extent that there is anybody who has complaints about that, we can all be reached and the letter also can be accessed at our website, which is [www.ada.gov](http://www.ada.gov). Thanks.

**KEN HIRSH:** Thank you and I'd like . . . (Overlapping voices) . . .

**SHARON KREVOR-WEISBAUM:** Thank you. No, just thank you. That was good.

**KEN HIRSH:** And I want to thank our three panelists including Sharon and Bryan who were last day almost additions to the panel and I want to thank all three of you very much for your help today.

**GARY NORMAN:** Thank you.

(Applause)

**END TRANSCRIPT**