



Transcript of podcast with:

Jeffery Bigham, Ph.D. Candidate at University Of Washington, founder [WebAnywhere](#); and

Rob Sinclair, Director of Accessibility, [Microsoft Corp.](#)

Chauncy Rucker (CR): Welcome. I'm Chauncy Rucker. I'm at the 2008 Technology Innovators Conference hosted by the National Center for Technology Innovation. The theme this year is "Thriving in a Global Marketplace." I'm having a conversation with Jeffrey Bigham. He's a graduate student at the University of Washington and is just doing fantastic stuff in terms of accessibility for people who are blind or have a visual disability. So Jeff, I'd like you to kind of highlight this new product you have and then we're also fortunate to have Rob Sinclair with us. Rob is Director of Accessibility at Microsoft and he will fill us in on some of the interesting things that continue to be done at Microsoft with accessibility.

Jeff Bigham (JB): Thanks Chauncy, it's great to be here. So one of the really exciting things we're doing at the University of Washington is a project called [WebAnywhere](#). Web Anywhere is a web-based alternative to a screen reader which allows you as a blind person to access the web without having to install any new software which means that it runs pretty much on any computer even locked down public terminals.

What we think is really exciting about this is not only that it opens up access on computers that may not have had access before, but also it illustrates the coming trend- or at least the trend that we think is going to be happening in the future on the web- which is assistive technology moving to a model more where it can be updated on demand, you can rapidly deploy new iterations on designs, get that software out to people so they're always dealing with the most recent version and they'll always have that assistive technology available to them wherever they happen to be. So we released this product a few months ago and if anyone's interested they can actually access it right now if they go to www.wa.cs.washington.edu. We're really excited about the future developments, all sorts of new features that we have planned and so I hope the people will continue to visit it and give us their feedback and let us know how it works for them.

CR: Can you just mention how they can go to any computer and get access, that notion?

JB: Right so by going to any computer I mean that essentially what you do to open up and start using WebAnywhere is that you fire up a web browser and then type in the URL. So if you're at a computer that doesn't already have a screen reader installed, that might seem challenging because how do you know how to do that. We found that many, many blind computer users are actually able to do that completely independently so one simple trick is if you know that you're on a Windows machine, you can hit



National Center for Technology Innovation

Advancing Technology Innovations for All Students

Window key+R and then type in a URL and then it'll go there. Then at that point WebAnywhere will start speaking, it'll provide all the shortcut keys that you need to browse the web. Then you have completely independent access with audio feedback from that point on.

If not, we've also found that most public computers and most computers in general have someone watching them so computers aren't just usually just out where anyone could do anything to them and so maybe someone would need help to get to that web page to start, but once they did, again, they would have that independent access on a computer that no one had to think beforehand to put a screen reader on. We found that that's a big problem. It seems like a pretty small thing, you just have to install some software, but when you talk to people who are managing all of these computers, it's they may not be aware or they don't want the extra overhead of installing something new on all these computers and so many computers just don't have that basic level of access that people would want and so WebAnywhere is something that provides that base level.

CR: One last question, is there a cost involved for the person?

JB: No, that's one of the great things about WebAnywhere, it's just a website, you just visit it, it's free just like the rest of the web and so you don't have to buy anything.

The project itself is actually an open source project. One of the ways it relates to the theme of the conference with the global marketplace is that we've been able to leverage the global community who are interested in assistive technology to help us with the development of it. As soon as we released it, we thought "Oh, we're going to get some people coming here, that'll be great." Before that, most of the feature requests were actually they wanted new shortcuts keys and more things that their other screen readers have, but as soon as we released it to this broader audience, we found that one of the most popular requests is for additional languages. We already have people working on both a Portuguese version-that was a person in Brazil -and then also a Chinese version by a man in China who contacted us who was interested in making that work.

CR: Fantastic. Thank you. Rob, take it from here.

RS: Well, I think one the interesting things for us at Microsoft is really just looking at how do we help move the industry forward and act as an agent of change in some respects or supporting agent in other roles because a lot of the work we've done at Microsoft is to build platforms and technologies that then other creative developers and designers can use to build and deploy new exciting solutions for customers.

We've know for years that this problem of installing software on your machine at home was problematic in today's workforce and lifestyle where people often travel, they're online in cafes or at friends' houses and so there's been a growing awareness in the last several years that portability is a significant desire from customers. That initially



National Center for Technology Innovation

Advancing Technology Innovations for All Students

began as this thought around USB-based assistive technologies and so we have a lot of partners who are doing great things with a USB key that you could have hanging on your key ring to take it with you, but the kind of work that Jeff's doing with WebAnywhere is ultimately portable because you don't have to carry anything with you. You log into the web, it's right there wherever you are so anywhere you're online, you have access to this product.

It's another way of actually addressing some of these needs so it's actually very exciting to see this kind of work happening. He's getting a lot of great attention for this product and it's well deserved.

It really hits on this core principle that we're driving, that I'm driving for at Microsoft, this idea of inclusive innovation which is really the idea of trying to re-think the way we engineer systems as a society and as a global economy around designing new products in a way that are useable for everyone because there're pretty well-established understanding now and agreement around the world that accessibility is not really just about people with severe disabilities, which is in some respects how it started, but in fact that a lot of these same investments have shown clear benefit for broad populations and many cases mainstream customers.

You can think of things, products that were designed for learning aides or dyslexia also being applied for people who have English as a second language or might be illiterate so that they're unable to read. They can take advantage of some of these projects or products to then still receive information through the web. For example, they know how to speak the language so perhaps they're able to use speech recognition and dictation to type a letter.

There're a lot of really interesting applications of technology that were originally designed for one narrow segment and now are seeing much broader deployment in value so that's something we're very keen to support and promote at Microsoft.

Jeff actually mentioned also this great model of cost here or no cost so while we support a wide variety of companies in the industry and believe that there's great value to customers in a broad range of products, some for pay and some for free, we think that there's actually a need for both because they are different models, they provide different benefits and so it's a great mix and in the end, really it's about customer choice and having the right solution for you.

CR: Let me just ask you one question. In *USAToday*, they were talking about some research from the Pew Internet Project that as we age, in getting to that much older group that they just aren't as much into anything in terms of the Internet, but the kinds of things being developed for people with disabilities would make it easier for those that are seniors. Correct?



National Center for Technology Innovation

Advancing Technology Innovations for All Students

JB: Yes absolutely. In fact we're doing a lot of work with-you know the terminology is always questionable, what's the right label and there's no one label, so I'll use the safe thing of the 50+ customer segment which sounds very... I don't know...sterile, but the idea is that absolutely, the way this technology is evolving and frankly the way the population is changing. I guess our expectations of technology have really changed because many people now in the "aging boomer segment" grew up with more technology. They grew up with science fiction where technology was often portrayed as being completely integrative in society, very easy to use; you know some people call it the Star Trek scenario.

The point is that in the end, this aging population, whether that's in the workplace or at home, they have a higher expectation of technology to address their needs and to be this flexible capability to adapt to their needs so today many of us still adapt to the technology around us constantly. Any time there's a new device or new product, we learn how to speak its language so I think one of the things we're looking for long term is to really understand how do we all as a global community really come together to create technology that adapts to us? Very relevant for the aging of the workforce and keeping those people in the workforce to retain their talents.

Speaking of the global economy and kind of the focus of this conference, one of the great things about having high quality, free technologies coming along like WebAnywhere is the fact that there are many, many populations in the world that don't have the financial assets or the distribution channels to use the traditional North American for-purchase product model. If we want to actually have a global impact, being able to deliver free products that are high quality through the Web is a great model and a great step forward.

CR: Rob and Jeff, thank you so much. I really appreciate it.