Good morning, afternoon, or evening, depending on where you’re joining us from. :-)  

Welcome to our February IBM Accessibility Facebook Expert Hour. We’re very glad you’ve joined us, and look forward to your questions. Marc Johlic, Bill Curtis-Davidson, My Luu, John Evans like this.

Today our expert is Rich Schwerdtfeger, who will be sharing his expertise and answering your questions about Accessibility and Business Trends.

Rich is the Chief Technology Officer, Accessibility, for IBM Software, an IBM Distinguished Engineer and Master Inventor. His responsibilities include overall accessibility architecture and strategy for Software Group. Richard participates in numerous W3C standards efforts including HTML 5, WAI Protocols and Formats, and Ubiquitous Web Applications. Jeanne Spellman, Vladimir Zahoranský, Brian W. F. Peaston like this.

Rich is an internationally recognized expert on accessibility with twenty years of accessibility experience.

He created and chairs the W3C WAI-ARIA accessibility standards effort for Web 2.0 applications. Richard co-chairs the IMS GLC Access for All accessibility standards efforts. He also formed and co-chairs the Open Ajax Alliance Accessibility Tools Task Force which is leading the industry in establishing new WCAG 2 accessibility rule sets and reporting best practices needed to support Web 2.0 applications. Anil Joshi, Vladimir Zahoranský, Charu Pandhi, Brian W. F. Peaston like this.

Vladimir Zahoranský W3C WAI-ARIA is very important document but we need say that it says info about general single-page accessibilities. If I have complex information system (with for ex. one million pages) with structural and contextual relations this document has very limited information how to do this system accessible. This document says general information about the topic of information accessibilities. Vladimir Zahoranský likes this.

Good Morning!

So now that you have Rich’s full background, let’s open the floor, or the Wall, as the case may be, for questions.

Juan Francisco Bastos Pazos I have a templated page, and due to a temporary bug in the template, it always require as a mandatory field the ALT TEXT for images. If I have an image with non-meaningful content, what would be more Accessible, copy a nearest header with the subject of the image (making a screenreader then read a duplicated content when passing by that image and its box’s header) or should we add a character that would be skipped by the screenreader? (like a ".")

Max Joyce does the guest and IBM work with VR Agencies state to state?

Rich Schwerdtfeger I am not following you. Please elaborate on VR agencies and guest.
Maureen Kraft  Good afternoon Rich, I was wondering what you see as the trends in IT over the next 2 to 3 years?

Rich Schwerdtfeger IT will move to mobile delivery with and there will an extreme move to adopt HTML 5. HTML 5 is more than just the markup but also additional API services that allow for access to local files GPS Data, etc. Also, HTML 5 features like integrated video and audio remove the need for plug-ins to do the same. Also, cross drawing functionality will afford companies the ability to create custom visualizations, such as pie charts, that can run cross platform.

Vladimir Zahoransky  likes this.

Rich Schwerdtfeger Other features such as an enhanced set of UI controls will improve accessibility as well as reduce the amount of JavaScript having the added effect of reducing download times.

Maureen Kraft Excellent. Thanks. So providing improvements for accessibility means better performance for all.

Max Joyce  vendor and working agreements

Max Joyce  VR agencies are seeking this

Vladimir Zahoransky  Max do you think about "employment" agreements for handicapped and the relation with the topic of the information accessibilities?

Vladimir Zahoransky, Max Joyce  like this.

Max Joyce  yes

Vladimir Zahoransky  This is very complex topic. Last year I prepared complex document (for my manager at IBM) about this topic, for the diversity program. At IBM we are interested to solve our real problems in this area.

Vladimir Zahoransky, Jim Lawrie  like this.

Paul Luther  Hello Rich, I am looking forward to hearing your thoughts on the industry trend for mobile devices and the impact to accessibility

Anil Joshi and Fran Hayden  like this.

Rich Schwerdtfeger  Well, industry is really converging on two areas - web and mobile, and this makes it easier for developers to support accessibility but it also requires assistive technology vendors to switch to entirely different platforms. This change to mobile is happening so fast that if the assistive technology vendors do not move fast enough we could lose them or new players will enter the market.

Brian W. F. Peaston  likes this.

Rich Schwerdtfeger  Also, assistive technology in the mobile space will be able to couple web services to augment the user experience in a way never possible before. For example, GPS data could be used to augment the services provided to a user who is blind while operating on the go.

Laura Lanham Kelley, Jim Lawrie, Danny Lee, Brian W. F. Peaston  like this.
Laura Lanham Kelley Rich -- What would the impact of AT vendors not moving fast enough on mobile be for people with disabilities?

Laura Lanham Kelley Love your GPS example :-)

Maureen Kraft What set of Assistive Technology Vendors do you see playing a role in the Mobile space? Vladimir Zahorsky likes this.

Fran Hayden These are all good points - glad to have this perspective.

Vladimir Zahorsky Maureen – At IBM I have interested on the support in application of some form of Cloud computing, the device accessed with “cloud“ for communication and information Exchange but this is only “concept“. It needs careful investigation of application possibilities. Vladimir Zahorsky likes this.

Vladimir Zahorsky Rich great topic about the application for blinds, but how do you want analyse the "digital" map in the aspects of the topology, metrics or measures of the objects in space presented in map? This is the point of success or failure for the project like this one. The connection between software and device is possible, the mobile internet application is possible but how you want analyse the "pure map datas"?

Vladimir Zahorsky likes this.

Rich Schwerdtfeger The solution in my mind requires alternative renderings. For example, and I raised this same point with Ian Hixon, the HTML 5 editor. Rather than giving someone a subway wouldn't it be better to marry GPS location with a live interactive text based UI that tells you where to go and where you are on the route during your travel as opposed to the map. Ian's response was that well everyone could you this. ... my point. Accessibility technology is essential for mobile situations. Vladimir Zahorsky likes this.

Rich Schwerdtfeger we need to incorporate other information like GPS, elevation,etc. to make things easier in today's mobile environment where all users are disabled.

Vladimir Zahorsky Rich – the GPS value is only point-style static value, while the real map contains very deep metric properties, object measures etc. The background source data standard is the excellent thing but the interpretation is very complicated. I think it is better to speak about the possibilities how to transforms the data from “pure source” standard to “special” one where several special these aspects will be obtained after the applications of complex procedures. The advantage is trivial. This is all about heavy data handling which can be realized by powerful IBM machine once. The concrete interpretation in practice is then much simpler. Simply said it is important to have the possibility to do simple “overlaying” on the structures from pure data format to “extended” specialized one. In my one report I presented my ideas. Vladimir Zahorsky likes this.

IBM Accessibility Rich is answering questions from the bottom up, so he will get to yours in a minute, if you haven't seen an answer yet.

Max Joyce I savvy now, ty
IBM Accessibility Facebook Expert Hour on Accessibility and Business Trends
Transcript 02/17/2011

Laura Lanham Kelley  Rich -- Are there any efforts underway to develop mobile standards for accessibility?

Rich Schwerdtfeger Yes, for the Web. We producing new standards to allow applications respond to user interaction using device independent events in the W3C. This would allow a blind, or mobility impaired user to operate a web application using a gesture or alternative input to the browser when at times a keyboard cannot be used.

Bill Curtis-Davidson, Brian W. F. Peaston, Vladimir Zahoransky like this.

Rich Schwerdtfeger Another is Access For All to address personalize access for users with disabilities. Neither is limited to mobile.

Vladimir Zahoransky likes this.

Vladimir Zahoransky Rich what about the magnification of the objects presented on display of the mobile? If you do magnification only very small number of objects are shown. The mobile display is very small in compare with normal display.

Vladimir Zahoransky likes this.

Greg Kraus How well have businesses been preparing for dealing with WCAG 2 Level AA?

Rich Schwerdtfeger Well, I think this is a real success story for enterprises. Well over a year ago IBM began supporting WCAG 2 A and WCAG 2 AA is on its way. The bigger hurdle was WCAG 2 A support. Besides customer demand one of the driving factors is WCAG 2 AA harmonization into emerging accessibility legislation like the 508 Refresh. I do know that other companies, like Microsoft, have similar strategies to address WCAG 2.

Greg Kraus I hope that is the case, but it has not been my experience with even some of the largest players in the IT field. It seems like WCAG 2 Level AA conformance doesn't always trickle down from the rhetoric at the top of an organization to the actual implementation.

Rich Schwerdtfeger Well, if these providers are going to sell to any government agency federal, local, or international within the next 2-3 years they had better get a plan in place. It may be that some of these enterprises do not have an accessibility program that is atuned to these changes. As you can imagine addressing WCAG 2 AA requires some lead time.

Juan Francisco Bastos Pazos I have a templated page, and due to a temporary bug in the template, it always require as a mandatory field the ALT TEXT for images.

If I have an image with non-meaningful content, what would be more Accessible, copy a nearest header with the subject of the image (making a screenreader then read a duplicated content when passing by that image and its box's header) or should we add a character that would be skipped by the screenreader? (like a ",")

Ann Abbott You can give a purely decorative image null alt text and the screen reader will ignore the image.

Andrew LaHart The proper code would be alt="" for the screenreader to skip the image entirely.

Andrew LaHart Juan, take a look at this technique from WCAG 2.0 for more examples:

http://www.w3.org/TR/2008/WD-WCAG20-TECHS-20081103/H67
Juan Francisco Bastos Pazos The template doesn't accept " " either, it MUST have a character in it. We were thinking of ",".

IBM Accessibility I'm sure you've noticed, Facebook changed the fan page template last week, and that has contributed to some flow issues. Thanks for hanging in there with us.

Brian W. F. Peaston likes this.

Vladimir Zahoranský What about the information accessibilities for low sighted. There is well known that they are in common related from the requests coming from diagnosis. Which diagnoses has been carefully investigated from the point of information accessibility which one have been integrated into standards?

Vladimir Zahoranský likes this.

Vladimir Zahoranský What about the contextual or structure schemas integrated into standards? Are there integrated the visual linear description (notation) supports? What about the mathematics information accessibilities?

Vladimir Zahoranský likes this.

Rich Schwerdtfeger Lot of questions here. Design Science has a tool to support MathML. MathML has the structural semantics needed to support the contextual information you require. What we need to do is move industry off of linearized text representation of Math to standardized markup like MathML.

Vladimir Zahoranský likes this.

Rich Schwerdtfeger One comment on ARIA is that it leverages structural semantics introduced in the parsing of the host language. This facilitates the delivery of contextual information to people with disabilities through their assistive technologies. Examples are ARIA landmarks or require child elements in things like ARIA Grids.

Vladimir Zahoranský Yes, I agree. In other words it says about the special mathematical notation standards. They need to be built above the base (base-codes). For example LAMBDA mathematical code for blinds well used in EU is built over MathML. The source data are in MathML while the representation is made by API – LAMBDA editor.

Vladimir Zahoranský likes this.

Vladimir Zahoranský The Nemeth code is typical base-free code so the benefits from the conversion by base are lost.

Vladimir Zahoranský likes this.

Eelke Folmer Over the last three decades, video games have evolved from a pastime into a force of change that is transforming the way people perceive, learn about, and interact with the world around them. Unfortunately most video games are inaccessible to users with disabilities. With the emergence of technologies such as HTML5 and WebGL that allow for playing 3D games through a browser do you see a role for WCAG 2 to define accessibility standards for video games? …especially since video games are increasingly being used for non entertainment purposes?, e.g., education, rehabilitation, health, training?

Brian W. F. Peaston likes this.

Rich Schwerdtfeger Well, this is perhaps bigger than WCAG 2. IBM research has done a great amount of work on addressing accessibility in things like Second Life. Concepts like 3d semantics
and the use of crowd sourcing to supply those semantics by all participating uses is critical. For example another user could add descriptive text to content in these games. Certainly WCAG 2 provides for semantics to be applied in these 3D games.

Brian W. F. Peaston likes this.

Rich Schwerdtfeger what is lacking is the technology to meet the needs of WCAG 2 and the introduction of social collaboration tools to enhance the accessibility of these games.

Brian W. F. Peaston Also, consider the convergence of mobile computing and gaming. For instance this year we have already seen the the Sony Playstation NGP and the Sony Ericsson Xperia Play. In this particular case hardware gaming controls are now an alternative input means on the devices and introduce new opportunities/challenges for accessibility e.g. for internet access.

Brian W. F. Peaston likes this.

Rich Schwerdtfeger On the other hand Microsoft's Kinects could be a very effective way for a person with mobility impairments to interact with their gaming devices. Basic gestures and movements may make things easier.

Brian W. F. Peaston likes this.

Eelke Folmer Thanks for your answer. The internet is predominantly text based and two dimensional and can be easily accessed through a screen reader. 3D environments are fundamentally different entirely visual and no textual content. Adding descriptive ...content for virtual world objects is an important first step that IBM has pioneered but this is only part of the solution. We have been doing similar research and we found that screen reader users are easily overwhelmed if you were to provide a textual description for every object near their avatar. We need to develop novel interaction mechanisms that allow users with disabilities to meaningfully interact with such emerging 3D technologies.

Brian W. F. Peaston likes this.

Rich Schwerdtfeger Well, in fact the work done by Bill Carter at IBM research provide higher level contextual information that provide data on where you were and what things are around you during your passage through Second Life. Also, people could be assistive avatars to help you navigate through 3D space.

Brian W. F. Peaston likes this.

Eelke Folmer Bill Carter and IBM have done some great work in this area. If you look at the amount of research that has been put in web accessibility research versus accessibility of 3D environments, then this work just represents the tip of the iceberg.... There is still so much to research and discover.

Unlike the web where we can learn from people with disabilities that have find hacks or workarounds to get access, many people with disabilities are completely excluded from 3D technologies. I worry about the emergence of natural interfaces such as gestures that already replace the interfaces of everyday devices such as ATM's or Check in kiosks at airports. These devices are notoriously inaccessible to users with visual impairments and despite Kinect being more natural for the most of us it will raise barriers for users with visual impairments. (though here's a little hack that allows someone to play a kinect game without visual feedback

http://eelke.com/realtimesensorysubstitution.html)

Thanks for your time!

Brian W. F. Peaston likes this.
IBM Accessibility Facebook Expert Hour on Accessibility and Business Trends
Transcript 02/17/2011

Rich Schwerdtfeger I agree.

David Lau Hi Rich,
With the Mobile platform (especially touch screen smart phone devices) gaining huge momentum in recent years, what are the current advancements in terms of accessibility?

Rich Schwerdtfeger As we speak I will be co-chairing an effort to produce device independent events in the W3C that allow browsers to map low level keyboard and touch input to higher level commands like: open, close, expand, collapse. This will allow users with disabilities to drive applications via touch or keyboard without the author having to write device specific software. This will dramatically help accessibility.

Rich Schwerdtfeger Also, new mobile OS platforms like iOS and Android are integrating assistive technologies into the platform but enabling third parties to also produce assistive technologies for the device.


Christine Banke I'm new to this kind of 'discussion'; how does one participate?

Anil Joshi likes this.

IBM Accessibility Christine, just post your question on the wall, or you can add a question/response to a continuing thread. :-)

Susann Keohane Rich, can you tell us about Access for all?

Rich Schwerdtfeger I glad you asked this. Access For All, originally began as an education standard. As we move to mobile it is increasingly important that our applications be context aware. That includes personal preference adaptation.

Rich Schwerdtfeger Access For All defines resource semantics (in a web page a resource might be the use of a third party's map service like Bing or Google Maps) to describe its accessibility capabilities. It also defines accessibility preferences whereby the resources are defined in terms of those preferences.

Rich Schwerdtfeger An application can then map content to meet the user's need in varying environments as would be experienced on mobile devices.

Juan Francisco Bastos Pazos How to build the alt text/longdesc of a flowchart picture with conditionals and other ramifications?

Vladimir Zahoranský likes this.

Vladimir Zahoranský There are several ways how to do it. I can send you some ideas for it. Vladimir Zahoranský likes this.
Max Joyce does the guest and IBM work with VR Agencies state to state?

IBM Accessibility Max, can you rephrase your question? We're not quite sure what you're asking.

Max Joyce Vocational Rehab Agencies, I live in Alabama, what is the relationship with VR Agencies?

Rich Schwerdtfeger I am not aware of any such relationship with VR agencies. What are your thoughts here?

Max Joyce vendor agreements

Max Joyce collaboration and vendor agreements?

Max Joyce vendor and working agreements

Max Joyce VR agencies are seeking this

Vladimir Zahoransky Agreements are very complex topic. It needs more individual discussion how to do them.

Vladimir Zahoransky likes this.

Max Joyce i see, OK, ty

Vladimir Zahoransky likes this.

Vladimir Zahoransky Please contact me individually and we can speak more about it.

Vladimir Zahoransky likes this.

Max Joyce will do, ty

IBM Accessibility Don't forget to refresh your browser -- we're giving Facebook a real workout today. :-) Mateusz Mentlewicz, Kristi Farinelli, Silvia Mihaiescu like this.

Max Joyce good point

Brian W. F. Peaston Hi Rich, Are there any up-to-date standards/guidelines that address the specific challenges of modern touch screen user?

Rich Schwerdtfeger Yes, there are two new efforts in the W3C to define the delivery of touch events to web applications and a new one started by Apple to deliver device independent UI events regardless of the input device. I am going to co-chari that effort within the next 1-2 months.

Brian W. F. Peaston likes this.

IBM Accessibility We knew Rich would be a popular expert today, so he's going to stay on until 12:15 ET to answer all of your questions.

Becky Gibson Do you think ARIA will help us in the mobile space?
IBM Accessibility Facebook Expert Hour on Accessibility and Business Trends
Transcript 02/17/2011

Rich Schwerdtfeger No question. ARIA provides semantics to support accessibility API services that meet the intent of the author. Furthermore it allows the author to do this in a platform independent way. With ARIA we go a long way toward supporting accessibility in a write once run anywhere way.

Kember A R Forcke Hey, Rich - In follow on to something Paul and Laura both touched on, What role do you think assistive technology will play in mobile devices?

Kember A R Forcke what do you see in the way of sign language? any technologies for mobile devices tht catch your attention?

Rich Schwerdtfeger Yes. Recently a company has provide a text to sign language utility for Android. So, many who are deaf do not have reading skills beyond grade 4. So, being able to have voice to sign language on a mobile phone is going to be essential. Another reason why assistive technology is soooo important for mobile devices.

Peter Fay Hi Rich: As Social Networking approaches to collaboration move from the Internet into the Enterprise how will IBM ensure that these new solutions will be accessible to everyone.

Rich Schwerdtfeger IBM software across the board has a focused to integrate WAI-ARIA into all our social collaboration software from Sametime e-meetings to Lotus Connections. This provides a rich accessible experience that we feel exceeds desktop accessibility and will lead to accessibility in products on all browser platforms that support accessibility services.
Charu Pandhi, Vladimir Zahoransky like this.

Marc Johlic Hi Rich - Thanks for taking the time to chat with us today! I see you've mentioned HTML5 and mobile.. I'm curious - What features of HTML5 make it a convergence platform for industry and why is this also important to mobile?

Vladimir Zahoransky likes this.

Rich Schwerdtfeger ARIA integration, video and audio tag support, a richer set of UI controls, canvas drawing capability, access to local data stores, media driven styling (media queries), and additional related applications services for file access, gps location access, etc. All this can be run cross platform. This is why HTML 5 is huge for mobile as companies don't have to do all this in a platform dependent. Writing for specific platforms is incredibly expensive, especially when the device may go out of favor.

Vladimir Zahoransky likes this.

Vladimir Zahoransky Simply said as web 2.0 was settled the ARIA document upgrade is rational successor on the trend of doing things accessible for handicapped.

Vladimir Zahoransky likes this.

John Evans Good morning/afternoon Rich. As more applications are moved into distributed network/cloud platforms, will this trend require a wholesale re-design of most assistive technologies and compliance checkers, or will it only be a minor transition from their traditionally single server/cpu client architecture to virtualization?

Bill Curtis-Davidson likes this.
Rich Schwerdtfeger: It depends. If you are delivering virtual desktops to remote devices for many there is not change necessary. However things like screen magnification will be problematic as network performance will be an issue. This will need to be addressed in the cloud services implementation.

Rich Schwerdtfeger: For other situations cloud-based services create huge opportunities for assistive technology to be delivered when platform services are not available. For Google provides a browser API to cloud services that provide text to speech and assistive technology could leverage this to be delivered on multiple OS platforms without waiting for these services to be there or having to license them.

Rich Schwerdtfeger: I have more on this but need to move to another question.

Rich Schwerdtfeger: One of the efforts, addressing this is Raising the Floor's Global Public Inclusive Infrastructure.

Greg Kraus: I think these public presentations are a great service, but it would be better if they could be done on a platform that was more accessible to people with disabilities. Even without a disability this was a very challenging conversation to follow because the posts were not in chronological order and it required rescanning the entire page upon each reload.

IBM Accessibility: Yes, Greg, that's true. Facebook changed the template for fan pages last week, and clearly did some unexpected adjustments in the page flow.

Vladimir Zahoransky: What about the integration of the Unicode signs or charts? How they can be accessible for people with disabilities? Especially for low sighted or blinds?

Christine Banke: Rich, with the convergence of TV & Web are you hearing any rumblings about standards for Internet TV, it's UI (apps, programming guide, etc) and the devices we use at home (remote, set-top boxes)?

John Evans, Alicia Jarvis like this.

Rich Schwerdtfeger: I am sure there are. I know there is a lot of discussion about the use HTML 5 in set top boxes. Really, HTML 5 is becoming our convergence application platform world wide. Also, there is an ISO standard called the Universal Remote Console that essentially allows your remote to become your UI to the TV regardless of the users ability. A good person to talk to about that is Gottfried Zimmerman]

Christine Banke and Bill Curtis-Davidson like this.

IBM Accessibility: Well, our time is up!

Christine Banke: Very useful - to gain broad perspective, answers to specific q, and networking, like-minds, etc

Fran Hayden: It was a great hour - very, very informative.
IBM Accessibility This concludes our latest IBM Accessibility Facebook Expert Hour. We appreciate your presence, and hope you found the discussion useful. We'd love to know your thoughts about today’s session, and future topics you'd find interesting.

IBM Accessibility Rich has offered to come back later this year and answer questions in another session. Would you be interested in another one with him?
Chris Schmechel, Eswaran Elang, Vladimir Zahoransky like this.

Vladimir Zahoransky I think the Diversity program in IBM need be pushed to fourth generation incorporating latest trends in this area. Actually all about diversities is concentrated on the point of personalistics because Diversity program is “owned” by department for Human Resources. At the present most of topics are IT specialized one, related to projects like A Smarter planet, out of HR. The new conception in this area can help do many things at IBM much simpler, for the possibilities to do better work and services for our customers.
Vladimir Zahoransky likes this.

Vladimir Zahoransky Yes, of course.
Vladimir Zahoransky likes this.

Rich Schwerdtfeger Thank you all for coming to ask questions. It was a lot of fun.