Overlays Panel at the 2020 ICT Accessibility Testing Symposium

The following is a transcript from the 90-minute “Accessibility Overlays” panel that took place online Friday, October 23, 2020.

The panel was part of the 5th Annual ICT Accessibility Testing Symposium.

Panel Chair: Chris M. Law, Accessibility Track

Karl Groves, Tenon.io,

Al Hoffman, Deque Systems, Inc.

Anil Lewis, National Federation of the Blind

David O’Neill, The Paciello Group

Cyndi Rowland, WebAIM

Panel introduction from the symposium program:

Wild conformance claims. Testing tool interference tactics.

A sub-par band-aid or a reasonable fix?

The world of Accessibility Overlays has long been a source of contention in the accessibility testing field. This year, the discussion is heating up… (1) There has been a proliferation in claims of ‘full’ or 100% conformance with accessibility standards; and (2) Overlays are now ‘spoofing’ automated accessibility checkers.

For decades, accessibility testing professionals have been advocating that to get to an accessible website, you need to fix the underlying code. If you want to make change lasting, you need to fix coding practices that lead to inaccessible code, through training and implementation of governance procedures in development. Those who promote and sell accessibility overlay technologies have espoused an alternative approach, whereby you can “use just one line of code” to pull in their tool, effectively absolving the customer of the need to fix their code and their programming practices.

In this panel, we will first briefly introduce the concept of overlays, what they do and how they generally work. We will then be discussion questions at the intersection of overlays and accessibility testing.

Video Recording

The recorded Accessibility Overlays Panel session is available to view on YouTube:

> https://www.youtube.com/watch?v=2ZKvOTs4pAc

Paper

There is reference in this transcript to the session's paper (abstract) in the Proceedings of the Symposium:

> Law et. al (2020) **Panel: Accessibility Overlays**. In *Proceedings of the 2020ICT Accessibility Testing Symposium: Time for Testing in Testing Times (Remote Work, Commerce, Education, Support...)*, Online, October21 –23, 2020, pp.25-27.

Transcript

We're going to do proper introductions after a ten minute introduction from me on overlays in general. We have David O'Neill from The Paciello Group. We have Cindy Rowland from WebAIM. We have Anil Lewis from the National Federation of the Blind. We have Al Hoffman from Deque Systems, Inc. and we have Karl Groves from Tenon.io

Panelists, if you could turn off your videos now and what I'll do is bring up my screen here… We've spent so much time getting reconnected and chitchatting that I forgot to put the PowerPoint up… Okay, hopefully you can see this…

I wanted to start off with—I know a number of folks in the audience are newcomers to the field. Maybe they haven't been exposed to overlays in the issues of overlays. We wanted to spend time at the beginning to explain what accessibility overlays are.

I like this quote that starts off the short paper in the proceedings about what is an accessibility overlay. This is a quote from Brad Henry from The Paciello Group this year.

"Accessibility overlays are applications and coding that sits between your website or other digital content and assistive technology. Their goal is to allow business owners and compliance managers the ability to make their website more accessible without having to change the underlying source code, thus providing accessibility at a fraction of the cost and time, comparatively speaking."

A lot of articles start like this just to lay the groundwork of what accessibility overlays are. Then comes a big "but." We'll get into the big "but"s in a minute.

What do overlays do? They modify the HTML code after the page load, but before the end user interacts with the content. Things that they do to a website code: changes like they add missing alternative text, they add missing attributes, event handlers, structural information. They might add functionality or features like text resizing, focus enhancement, color scheme adjustments, those types of things.

We have a visual representation of this that I will walk you through. We have a website and we are representing a website that's not necessarily accessible represented by the red lock icon. The user interacts via the accessibility overlay, and therefore gets—in theory—accessible content.

It doesn't modify the code, it sits there and does work when it's required, but it does impact the end-user experience using this technology.

>> Everybody's hearing a clicking sound.

>>Chris Law: I'm sorry for the clicking sound. We found out what it is, it is my little camera that has a motor inside it trying to focus and we had focus issues all week. I think it's designed for one person sitting in one place all the time.

>> It actually stops every time you share the screen, so it might be just the vibration.

>>Chris Law: Hopefully we can get through it. Types of overlays, we have toolbars, plug-ins, third-party widgets. It can be JavaScript based. Not all overlays are created equal, there's many different types of overlays. Certain types have more complicated implementations that others coming from a technical perspective or from the audience it serves.

I said there was a big "BUT." On my screen I have a very big BUT...

The accessibility testing field does not espouse the approach. We don't have an accessible website to begin with. The papers and presentations we have heard at this conference and other conferences from accessibility testing professionals is, the goal is really to fix your digital content.

I put a cross through the red lock icon and the green padlock is an open padlock of the now accessible content is there. So there's no need for an overlay, it's sort of a direct connection in here. That's the first "but".

A second "but"—this was all known very commonly in the past—but there are two key things that really happened in the beginning of this year that really brought about the need for this panel. The first—I have some images of articles, one of them written by Karl Groves he was on our panel. It's called "Automated lies with one line of code". There's an article from Level Access called "Lies, damned lies, overlays and widgets". It shows somebody with their fingers crossed behind their back.

The claims coming out of a lot of developers and vendors of overlays is "100% conformance". A lot of us in the accessibility testing field are like, what? There's no feasible way to create 100% conformance with WCAG using an automated system at this stage. We know the technology does not exist. But that's the claim that's being made, it's the impression that a lot of people who don't know accessibility are getting. That was the first one.

The second thing that happened is that something, I'm just gonna call it "sneaky", started happening. People started writing about this and discussing this online, there's references to it and you can read articles in the paper that goes along with this panel. It started with Wave. Wave is an accessibility evaluation tool from WebAIM, Cindy is on the panel today with WebAIM. Wave is a tool you can use to interrogate a website and try to figure out by parsing that code and it determines whether it's accessible. If it has alt text and other accessible features. It's a very useful testing tool. I have a very soft

spot in my heart for Wave because it's one of the earliest ones I ever saw, one of the earliest of implementations of this more than 20 years ago.

What happened this year that caused some articles to be written, the overlays got in the way and somebody wrote some intercept code for overlays, that detected the site was being interrogated by an accessibility checker. It intercepted that, then sent back a false result, and said "Everything's fine! Everything's great!". It was more complicated than that, but that was the gist of it. They were spoofing the accessibility checkers.

Those two things led to many of us having conversations at the beginning of this year and saying, as a service to the accessibility field, why don't we get together and talk about this? Before I get into my first questions for the panelists, I would like them to introduce themselves. Panelists, please go back to your videos and we will do some quick introductions. For everybody that's on this for people who are visual, I would suggest switching to gallery view to get a better experience out of the panel.

We will have everybody's cameras on throughout the session. Just a quick introduction for everybody, then we'll get into the first question. I'm going to start with where I see my screen, around, so that's the order I'm going in. I'm going to start with Anil Lewis.

>> Anil Lewis: Hey Chris, thanks for setting this panel up. I feel like the "redheaded stepchild" with the other panelists with all their expertise that they bring to bear. I think the consumer perspective presented by the National Federation of the Blind is key to this discussion and I'm looking forward to the panel discussion. I'm the Executive Director of Blindness Initiatives for the national Federation for the blind, and in that capacity I handle education, employment, access technology and research that we have in the National Federation of the Blind Jernigan Institute in Baltimore, Maryland.

>> Karl Groves: Hi, I'm the founder and president of Tenon.io, manufacturer and seller of the Tenon io tool, as well as various other tools. Also, I've been a consultant for about 20 years now.

>> Cindy Rowland: I am the founder and director of WebAIM at Utah State University. And Chris, you just made me feel really old… that you've been to Wave twenty-something years ago!

>>Chris Law: I have a special place in my heart for it!

>> Cindy Rowland: We love that people have a soft spot for our tool!

>> David O'Neill: Congratulations to you Chris and Matt for another successful symposium. I'm David O'Neill, the chief architect, SaaS systems for The Paciello Group. It's a pleasure to be here on the panel with such esteemed colleagues. So let's have a good session.

>>Chris Law: Thanks, David. Finally, Alan Hoffman.

>> Alan Hoffman: Hello folks, I'm Alan Hoffman and I work with Deque Systems, Inc. I'm formerly in the federal government. I don't have any tools myself, but Deque Systems does sell tools and I think I'm kind of like the rest of you, I've been doing this for ages. We've seen overlays for ages of one sort or another. So I'm glad to be here and I think this is an important topic to raise awareness to get people to understand where these things fit in the grand scheme of life.

>>Chris Law: Thanks, Al. The way we are going to handle these questions… I got some questions I've prepared in advance for the panelists. If you in the audience have questions you would like to ask during the panel, in the live session you can raise your hand, and Stacy will be monitoring that and letting us know when that happens. I will try to keep my eye on it as well. Also you can ask questions in the Slack channel and Stacy will monitor that as well. Thanks Stacy for doing those duties.

I will ask questions and then I'm going to pick on people at random to start the questions, then we will have answers from various people in the [panel] audience. The first question I'm going to start with Karl because I picked on him with his article that he had. Can claims such as 100% accessibility conformance be substantiated with respect to overlays?

>> Karl Groves: That one is probably the easiest one. I wish you'd given me something harder! No! Ans the logic of this is really simple. When it comes to testing, since this is a testing symposium, we all know or at least we should hopefully only that there's very limited number of things that can be tested for automatically. So these are going to be things that are programmatically obvious, things like missing form field labels and things like that.

Some of the things can be tested for, but need to be verified by a human. We can test for instance if an image has an alt, we can also run a series of tests to determine if the alt looks suspicious, then the human has to verify it. Then there are things where it's literally either too programmatically complicated or too subjective in nature to be able to test. As a matter of fact, I believe it was last year at the symposium, Jared Smith gave a great presentation on the complexity of testing color contrast.

On our own side of things at Tenon, we have a series of conditions where we say "No, we're not even going to test contrast". That's things like absolute positioning, CSS3 transitions, contrast where there's background image, all of these sorts of situations where we at Tenon we are "I'm not even touching that!". Because of the complexity and because of some of the other various conditions that make that hard.

We had this list of things we can test for and we think through how much of these things can I fix, that list is much smaller. For us we have 227 tests in production. We have a new product ourselves which is an automatic fixing tool and we can only fix 80 things. So of the massive list of things we can test for, which we know is still not complete all of the things you should test for, 34% of it can be fixed.

It's just based on raw numbers and logic, it's an absolute misunderstanding of accessibility to think that any tool could automatically do this.

>>Chris Law: It's not that it's 95% of the way there, it's really that it's only like 35% of the way there or less.

>> Karl Groves: Less. Even less. Because we are talking about 35% of the automatic things—which is only 25 or 30 things— so in the teens I think.

>>Chris Law: Who would like to follow up on that? David, or Anil? David had a hand.

>> David O'Neill: I would yield to Anil.

>> Anil Lewis: One quick point that Karl brought up, and I hope people noticed. In the last part of his answer he says “I don’t think that it should”, and I think that’s important because I think that when people listen to the problems that he just described, the motivations of “what we can do to make sure this overlay does do that?”, and I don’t think that should be the goal. Hopefully that will come out and further discussion. Just recognizing that perhaps there is a utility, but trying to overlays the overall solution is the wrong pathway.

>> David O’Neill: I would have to say that I think that first of all there are no unicorns and there are no magic wands that are going to make an accessible implantation suddenly conform or be compliant. And certainly not accessible. I think Karl lays out a very appropriate way of rationalizing that through his exploration of pure automated testing and what we find in this field.

I would add to that that scientifically there are sufficient publications and documents that have been written by our colleagues that thoroughly explore these claims and debunk the myths. It’s somewhat irresponsible to have a marketing message that suggests that it is even remotely possible to do so.

I would add one thing that it is human nature to chase unicorns. And that’s okay. I think there’s a lot of value in that because it helps us evolve and innovate. But the key here is that we need to look at where the real opportunity with this pursuit? Where is the real opportunity for this pursuit? The real opportunity does not lie in our current notion of an overlay, but actually it maybe lies in other areas of the accessibility architecture where we can apply some of the things that we’re trying to do new technologies, to healing opportunities. I think that needs to be brought back into the authoring environment more so than it needs to be put forward in the user experience. I think that’s going to be a very healthy thing for us to discuss and work together with as a field in the coming decade. How do healing technologies play out and where do they belong in the overall architecture of accessibility?

>>Chris Law: Cindy, I see you nodding your head.

>> Cindy Rowland: I have a flood of things coming to mind, but I’m going to mention or add to other elements to this art of the discussion. The first is this notion of “can claims be substantiated?” For those of us who do testing, we assume that there is a site in a fairly static state, right?. Where we can go ahead and take a peek at it. But, the way that some of the overlays are working as it goes into—this “intercept code” that will go in, then it will change the result—it’s assuming that the user itself will do something with the page before the user is using it. So, as a person myself with low vision, I would need to go in and invoke low contrast to be able to get a better contrast. But what if I don’t do that? If I’m browsing around and I just want to go to one page, am I really going to go through everything involved to setting up my own profile for that page to invoke low contrast?

Probably not. The question is even more complicated because it’s not just can it claim that it can give me better contrast? Guess what, if I invoke low contrast, now it will give me better contrast than was in the default setting. But what is my responsibility as a user to interact with that content? Folks that use this believe—that users—or folks that produce the overlay’s believe that users do have some measure of accountability.

That’s something I would dispute, but that’s something to think about and something to talk about. The other thing I would like to toss into the conversation is to the extent that overlays are getting slapped

recently and sites are getting slapped for being inaccessible and folks are using overlays as a solution, it's sometimes because of court action.

We see a lot of instances where the courts are asking entities to run automated tests on a regular basis to show the courts that they are in compliance. For me, it begs the question of—none of us can ever understand the motivation or incentive of other people—for me it begs the question of what is the incentive? What is the motive of someone who would prefer to use a site that will fake out automated testing tools so they could possibly return the results to the courts as requested as being in conformance. Whether you land on the side of "nefarious" or land on the side of "accidental mistake in the pursuit of unicorns", as David would say, it's anyone's guess.

>>Chris Law: I didn't mention lawsuits in my introduction, but keeping an eye on accessibility in the news recently, there have been lawsuits related to this. I guess my wrap up on this point would be, what do we expect the courts to say regarding this claim of 100% conformance? Do you think it will be thrown out? Al?

>> Alan Hoffman: We left an important topic out of "can this be substantiated?" I think you have to go back—first of all, overlays are not testing tools in and of themselves, they are actually fixing tools. Assuming they are going to do that and provide 100% coverage just doesn't really make a lot of sense.

Second of all, if you think about it, in theory if you wrote—if you took a page and you tested it, then you figure out all of the fixes that have to be done to that page, then put them in as a "Okay this is wrong, replace with this", which could go all the way up to "Replace the whole page", in theory I suppose you could be at 100% compliant with an overlay type architecture. But if you're going to do all that you might as well just fix the page. That's just the reality. Besides that, it's not maintainable if you did all of that. Some things technically can't be done at the overlay stage. Just thinking about from a practical perspective, they are testing tools, there fixing tools, so you cannot substantiate with a fixing tool.

>> Karl Groves: I don't know if this is something you were planning on discussing later, but I do want to put it out there that I feel it's entirely appropriate to fix things at the presentation layer. To Al's point, there's a point you don't want to do that, but let me give you an example.

Many years ago I worked for a company called Simply Accessible, which has since been purchased by Level Access. We were working on a contract with Target Canada. They had the presentation of a map and that map would show you where in your area there was a Target and whether that target had a pharmacy and things like that. The problem was they were using Google maps to do that. There was a business case decision made to use Google maps to present this information.

Google maps, however was inaccessible. What we did, and I give credit to the developer who did that, Jeff Smith. He hacked the Google map after the fact. There is the Google map JavaScript, then there was Jeff's JavaScript which fixes the pins and other stuff so that as you tap through the results of the list, the updates happen automatically.

These types of things are entirely appropriate. If you can fix the thing and you can do it quicker, easier, less of a nightmare with your own JavaScript, that's fine. As a matter of fact, that's kind of what Level Access Alchemy does, it's what Deque Systems does and what Tenon's Spline does. There's a series of things we have decided can be fixed automatically. There's also existing things can be done in implementation to fix those after the fact.

Some of that stuff gets brittle, but that's a different thing. We are talking about two things. We are talking about the possibility of getting to 100% compliance, which I think we know can't be done. But, whether you can actually fix the is a different story. Yes, you are not going to get to 100%, I think we agree about that. But, can that be done?

>>Chris Law: One scenario… you've got somebody who's trying to come up with a fix for another inaccessible platform as part of an accessibility solution. But in the overlays business model, I think that we are focusing on, I think you have an inaccessible website. You don't want to invest the time and effort to do it, so can you have this "one line of code"?

>> Anil Lewis: Can I offer an extension? Fixing it is great, but I think the piece that needs to also be in those tools is conveying that specific information back to the developer. I think that's the key point. If the tool can be used to identify a problem, then let the developer know what needed to be done to fix it, that's a better win-win. Otherwise that developer is going to continue to develop, and continue to make those same mistakes, and it's going to become an overly dependent relationship between the product they're creating and the tool. And I don't know if the businesses using these recognize that makes somewhat of a "hostage" situation. Individuals with that talent who continue to rely on the overlay. What happens when the overlay license fees start going up and up and up? You just don't have the infrastructure to support your own presence.

>> Karl Groves: That's where you get into the real issue, the ethical side of it. To his point, you become a hostage to this thing. As soon as it's gone, in other words you're like "I'm not paying this fee anymore…", so is your accessibility. Your accessibility is gone.

>> Anil Lewis: Yeah, you're left with a wreck!

>> Karl Groves: So we know the claims of conformance are wrong and we know the approach is wrong to Anil's point to say that something that should be a temporary solution is treated as a permanent solution.

>> Anil Lewis: I like using words like Band-Aid, intervention rather than solution. To make sure people understand this should not be default. I see so many people relying on that it's the answer and that is flawed. For usability and in the business case.

>>Chris Law: Keen-eyed observers in the crowd will notice there are no representatives from the companies that are producing accessibility overlays on this panel. This is something we did all discuss at the beginning and we decided that this year, the first instances is for our take as an accessibility testing field… it's not like people from those companies come to our conferences. So, it's something maybe we take from this year and maybe invite commentary and participation next year for the subject beyond that. We want to focus on what are the aspects that relate specifically to testing and how it impacts us. That brings me to the second question, when testing a website for accessibility, and an overlay is present, should the site to be tested with or without the overlay? I'm going to go to David for this.

>> David O'Neill: Okay, great, I contemplated that question for the first time when it was presented in this panel outline. My reaction to it was, how do we do testing today at The Paciello Group? What should our position be? I queried a number of people in our teams to get their opinions on this, as well. Here's the conclusion I have come to on this, and I will try to be brief.

First when looking at overlays, I categorized the functionality of overlays into three pieces. One is the assistive technology type widget and gadgetry that might be offered as a supplement to the user experience that may or may not be used by a user. It's like this optional gadgetry.

Number two: the auto magical healing properties that insert themselves regardless of your request. In other words, I'm going to transform it as it reaches you and I'm going to magically fix things for you. And finally, the third category, which I don't think deserves any discussion, which is the nefarious cloaking features that make it impossible for you to successfully test using tools like Wave, or ARC, or Tenon's product. Right? That's bad.

>>Chris Law: That will be our next follow-up question.

>> David O'Neill: Subcategory one being the assistive technology gadgetry. What we do when we test is we set a baseline for our customers. Here is what we are testing with. Sometimes that baseline, if the engagement includes usability testing, will include AT, such as Jaws or perhaps NVDA, or some other form of assistive technology we want to provide insight. I suggest the way we would handle category one of these gadgets is to treated as an additional modality or baseline test case.

I do think it's important that customers understand the technology they are buying or the solutions or Band-Aids they are buying. Do they work, and what problems do they present in the context of real-life users? I think that's one approach. With respect to the automatic features that run and users don't have a choice, I think it's our responsibility to say this is how the website presents with this overlay running, therefore it's not necessarily sitting between me as a user and the website, it's actually running sidecar and becomes part of the limitation. I think the proper approach is to test it with the overlay and its result and what impact it has. They become one implantation. That raises a whole architecture questions of whether or not that belongs there or somewhere else. That's the approach I would take these two categories of capabilities that I see in overlays today that are worth talking about.

>>Chris Law: Al, you advise testing teams… what would your advice be?

>> Alan Hoffman: I'm going to go back a little bit. It depends on what you want to get out of your testing. If you want to know the difference between on and off, then test for it. As David said if you want to know usability for some of the in browser assistive technology functions, then test for it. It's not in on or off choice, it's what do you want to know for your tests? If the user isn't going to get a choice, and like David said that's what you get, then test with it.

The user doesn't get a choice. I have a pretty short answer, it depends on what you want to know.

>>Chris Law: Anil, what about if it's a legal question?

>> Anil Lewis: When we test, we like to test straight. You have to understand, our whole goal is to really move to a place where accessibility is commonplace. As long as there's third-party intervention, it's always something that's extra and people see as a burden or additional expense. Realistically it's not that difficult. I love quoting Jeff [Wieland], formally of Facebook, is that "accessible coding is just good coding".

At any instances prohibiting that developer from honing their skill that allows them to develop a successful page at the design phase, I don't support. I think that these overlays have a place to maybe

“intervene” while that’s being put in place, but I think realistically we have to create a space where the developer knows how to do it. The other reason is because if we teach them to code to the standard, then all of the other players don’t have to continue to be so dynamic in the way that the interface. So the third-party AT providers.

A lot of our testing now we use NVDA because it doesn’t do a lot of the “fixing”. If it’s coded to the standard, chances are it’s going to work well with NVDA when we talking about screen readers. That means that whether it’s designed for Chrome or Chromium or Edge, now or Firefox. Many of the developers are using what they’re familiar with in their native space. If they encode to the standard, it should be accessible. What I like about that is if you run into a problem where even coding to the standard creates that problem, then it’s better informing the standard. Right? Creating that same standard space that everybody can operate on should be the key. I’m glad you brought it back to litigation. The National Federation of the Blind has a reputation for litigation. It’s well-earned because we are good at it. We are good at it because we are strategic about it. That’s not the best way we interact with our partners. We are much better partners than litigants. We don’t have the resources to sue everybody. Unfortunately because our reputation of being successful, we also get paired with this

“click-by” lawsuit going on where people are suing based on accessibility with no intent to move the needle. I want to make sure everybody’s clear, that is not our goal or philosophy or strategy. We have some tremendous partnerships and many of them have developed out of initial litigation which we have settled and taught them that the efficacy of what we are trying to have them adopt really is the smart thing to do, and makes good business sense overall.

The litigation related to this, I think—and I’m not a lawyer, I offer that as a disclaimer—I think if an entity puts the overlay as their solution to an accessibility lawsuit, and we are still able to identify that that site is inaccessible, it’s still going to be the entity. I don’t think the overlay has liability because it’s the entity making the decision to use that as their tool towards accessibility. Again it gives the overlay company a “safe space” to hold the entity hostage once they get them dependent without any liability.

>>Chris Law: I see you nodding Cindy. What do you think?

>> Cindy Rowland: I completely agree with Anil. I think that certainly our approach with Wave is that folks need to proceed with caution with testing when there’s an overlay. Even our conversations get a little convoluted because there’s so many different overlays and which ones am I talking about at any point in time?

You may have seen this where an overlay has detected us and changed some code, we just now automatically put up a notice that lets the tester know that this is a page that’s using that and some features may not be able to be tested in the way that you would expect them to be. And, we make a recommendation that folks do testing manually for those pages.

If you are asking if testing should be done with or without, our position is you can’t really know because there are so many variables. For us it does goes back to “what’s the purpose of your testing?” But for us the answer is going to be as these things start to get sprinkled all around, more manual testing will be needed. But we’ve got to absolutely send out the message that “the emperor has no clothes”.

That just can’t be underscored enough.

>>Chris Law: My final question in a while will be about what our position statement might be. In answer, from when the website has an overlay present, should be tested with or without the overlay? I think we have two answers here. One, it depends on what you want to get out of your test. You have to define what your testing goals are. The other one, really it depends on who your audience is in regards to that question. For example, if your audience for that question is a legal case that is being heard, your response is going to be that you had to explain both parts of that. Correct me if I'm wrong in that interpretation. You say with the original is like, then what the experience is like with the overlay. Did I get that right?

>> Karl Groves: Our philosophy is to test as though the overlay didn't exist. Unless told otherwise by a customer. Our customer's hiring us to tell them what's wrong with their website and how they can be improved. As a matter of fact, Version 2 of Tenon's APIs going to block those scripts from ever running. Our approach, our architecture, is a bit different from Wave's in that we have full access to the DOM that allows us in a way to determine what even gets loaded.

So I can just say "You got something from this domain, from AccessiBe? It doesn't even load". I think from a customer service perspective, it's just one of those things where it's like they want to know what they've done wrong and what they need to improve.

>> David O'Neill: It's kind of tricky, and this is where I try to categorize the capabilities of the overlay and separate the decision-making around testing based on these categories. If there is overlay technology that is indiscriminately applied so that the DOM that rendered is indiscriminately rendered for every one, I consider that to be that customers implementation. Do I agree with it? No. To Anil's point, we should be solving these problems upstream in the design and development process.

We need to educate people how to do this right. But from the perspective of the public users of these sites, if the component of the overlay is indiscriminately applying some JavaScript in an attempt to improve accessibility and it results in some DOM that's consumed equally by everyone without choice, that's what we will test, because that is their implementation.

It gets hairy quickly if we start to try to say we detected this, let's remove it. How about the cases that you referenced, Karl, we have a custom implantation like Google maps and they develop a custom workaround that solving a problem short-term that is making something accessible that wasn't otherwise accessible. It's tricky and it's almost like when we get to the last question, Chris, when we talk about how we as a field start to lay out standard ways of looking at this,

and perhaps judging these things were collectively. I think we are a ways from that yet, but I think that will be helpful.

>>Chris Law: Yeah. Okay, I want to remind everybody that you can raise your hand if you have a question throughout the presentation. Stacy, I wanted to check in with you to see if there's any questions coming in yet. Matt has a question. Stacy did you see any questions?

>> Stacy Ford: Go ahead Matt, and I'll go back to that spot.

>>Matt Feldman: Obviously overlays exist because there's a market into motivation for them. I almost want to flip the script a little bit. We have a panelist group here that has been solving problems for customers to educate them for decades. If I were an entrepreneur and if that motivation is that I need—I

don’t have any knowledge of accessibility—I need a cheap solution that can address my accessibility issues as quickly as possible so that experience can be a positive one for all of my end-users. I’m the entrepreneur, can you tell me in your opinion what is that “right” approach? What’s the best way that I can tackle this?

>> Karl Groves: I’ve already said before that there’s not a problem with applying something that’s going to do some automatic fixing of some kind. Frankly speaking, there’s not a whole lot of problems with the overlays themselves in terms of the fact that they are trying to solve a problem. The biggest problem, frankly, for me is the grandiose claims that are demonstrably false. Frankly, misleading in a way that’s possibly criminal. That’s a big issue.

Crappy products exist out there all the time. There’s crappy cars and crappy computers and crappy products that don’t work well are everywhere. But none of them… only in male enhancement products, diet products, and accessibility are people making these claims that simply can’t be proven.

>>Chris Law: We don’t have an “FDA approved” equivalent. What do we do?

>> Alan Hoffman: I have a question that goes back to Matt’s point and motivation. Are there any open source free overlay tools people can use—and I’m not aware of any. I could be wrong, but to take the money motivation out of that picture, are there any ones that say we think these are a great resource, so we are going to put it out there.

>>Chris Law: I don’t know either. Does somebody know?

>> Anil Lewis: If there was, that would result in people actually understanding it’s not really needed, right? In the process of being part of that open-source group, they are going to be developing a skill that allows them to...

>> Alan Hoffman: I threw that out there as an indicator of the motivation behind the model.

>> Anil Lewis: That’s a very good point. I resonated with what Matt said about awareness. I think that’s really how the overlays are capitalizing on this, by creating that market. Many businesses think this is harder than it is. They think it’s more expensive than it is, and I think that at the National Federation of the Blind, we are trying to make sure we educate. We are active with Teach Access, teaching people as they attain their training in the IT fields that they recognize that accessible coding is good coding. Work with our partners to let them know it’s better to invest in infrastructure that’s going to be sustainable and more under your control rather than being held hostage by somebody offering that piece. I would tell the entrepreneur how long do you plan on staying in business? That’s the question I would ask. And do you want to become overly dependent on the third-party that’s going to have a significant control over your ability to stay in business, or do you want to acquire that skill set which gives you more control and allows you to be more dynamic in the presence you create?

>> Cindy Rowland: Matt brought up a good question of what should our approach be? At WebAIM we’ve had some interesting conversations about this. Jared Smith forwarded what I think is a provocative question for those of us in the field to take seriously and ask ourselves: is the proliferation of these tools showing us that as a field we are failing the customers? Because there’s a lag in what we can provide. Because look around: for some groups the cost is high. So what do you say, going back to Matt’s question? You have a customer who doesn’t have a lot of funds, they may not even have full-

time web developers. What is their solution? Is that showing us that as a field of web developers and accessibility specialists that we've got skin in the game, too? Let's not be naïve. Are we failing? Is this a call for us to have that conversation as well? I think it's provocative and worth a discussion.

>>Chris Law: I think we will return to that at the end with the statement of what we think. I see that there's a hand up, I know that Stacy said there's a couple questions that came in on Slack. Let's tackle those.

>> Stacy Ford: The first one was how do overloads no when/if they need to be instantiated, for example are the overlays detecting AT via the browser, or is the browser detecting the AT or sharing information with the server and back to the overlays?

>>Chris Law: That's a technical implementation question. Who would like to respond?

>> Karl Groves: At present, the major players in the overlays space require the user to activate the fixes and features. For instance, if you go to a site—I'm going to avoid naming names as much as I can because I think most of them, if not all, work the same way. If you go to a site with an overlay and you tab, their assumption is that the person who hit the tab key after a certain time is a person with a disability and needs enhancements.

Then you have to toggle these on to enable this accessibility mode. That's how the overlays we are referring to work. You cannot detect assistive technology through any means that's available to you as the website owner.

There are some weird things you can do that are impractical and fraught with error and just generally a bad idea. For instance, a long time ago, you could insert some JavaScript that would talk to Flash ActionScript that would tell you that MSAA enabling assistive technology turned on—those are useful thought experiments, but on a practical level you can't detect those, so there's no interplay between those things.

>>Chris Law: I think we get the gist of how that works. Thanks for that.

>> Cindy Rowland: I would like to toss in in our experience, at least with one product, in their code they would detect anything that came from Wave as something that needed to be changed. They would intercept that and make the changes and there you go. That's what Wave would be testing. It wasn't always a user interaction or user behavior. Sometimes it was "Oh, we detect something's coming from a test!".

It's Wave now. Trust me, it will be every single test that anyone has.

>>Chris Law: This is my third question, so I'm going to jump into this now. We will get to the other questions in a minute. While we are on this, I want to stick in this question. My question that I posed in the paper, and this is about accessibility tester, the person involved. The question is, what should accessibility testers do when it's known that an overlay coding is modifying the test result? So Cindy, in your case you dealt with this as an organization.

What do you actually do? I think you said that you notify people. What should the actual person do, in relation to their customer? As an accessibility tester…?

>> Cindy Rowland: It goes back to what Alan said, what is the purpose of the testing? Let's assume for the sake of conversation that the purpose of the testing is in fact conformance to standards. Unless it's very obvious what the overlay is doing, and that can take some expertise to figure all of that out, I think you gotta go back to just doing good old standard manual testing and user testing and set those tools aside a bit because you may not be able to trust them.

>>Chris Law: Is that something you can do in the coding? Karl, you mentioned you were putting in script detectors and things. Is this… we were talking about… detecting detectors that are fudging the results?

>> Karl Groves: In the interest of making sure that our results are accurate to this philosophy, like I said before—David also has an interesting counterpoint against that our goal is to test the customer's stuff and not that other stuff—that's kind of what I'm hoping to accomplish with it. It's to avoid allowing the waters to get muddied by something else that's beyond the customer's control and potentially temporary.

>>Chris Law: Does this behavior to anybody seem like it borders on doing something criminal?

>> Karl Groves: That's kind of it. You have a customer who is—let's go back to the Wave user. You have a person who's using Wave in a good faith effort to detect the problems on their site so they can then mediated on their side of things. This person is trusting Wave to give them good advice. Wave is unfortunately hampered from doing that. To the extent that we now have this massively litigious atmosphere in the United States, this Wave user is now unable to do the necessary things to ensure their own compliance with the ADA. Therefore increasing their own risk.

>> David O'Neill: I think as testers, when we begin and engagement, we have a responsibility to first document what we know about this implementation and it should include whether or not the implementation is implementing a form of overlay or a technology that has these qualities or behaviors.

The next thing is, as testers we need to know—I'm sure even though we all have our own products, we all take advantage of a variety of tools in order to help us do a thorough job when we are manually evaluating. We have to be prepared, as Cindy said, to get down to old-fashioned 100% pure manual testing. I know that takes longer in many cases, but this is a fact. If you want to provide the customer with insights they can action on, and tools are unable to do it because of this digital war that's about to start between "detection" and "anti-detection". It's amazing where we are in the world today. You need to be able to resort to your manual skill sets in those cases. I would also suggest that as tool providers, perhaps we all need to agree that there is value in us allowing the testing community to be able to report up to us cases where they see this happening.

We need to have universally accessible "repo" of these known issues. That way our colleagues doing these tests can all be aware of the impact of these overlays on the effectiveness of our individual products.

>>Chris Law: Any further points anyone wants to make on this?

>> Anil Lewis: I made it clear our philosophy around this piece that the utility of it, it can be used as a tool in a way that continues to inform so that the actual skills necessary to create an accessible

experience during the design phase is enhanced. If it's used that way, I think it can be an effective tool. If it's used to replace that, I think that is a lose-lose for everybody concerned except the overlay entity.

>>Chris Law: There's certainly nothing straightforward about this question and about what's happening and what's going on. I think we are at least starting that conversation and I think having some sort of central place that people can post these things is going to be vital for the community. Stacy, I know there was another question on slack, then we'll go to Madeleine and Ameenah.

>> Stacy Ford: This one is from Chris [Loiselle], there's a little bit of explanation before it, but the question is, "do these overlay companies have VPATs, ACRs, and what are the issues with the products themselves?"

>>Chris Law: Do the overlays themselves have VPATs? Anybody seen one?

>> Chris Loiselle: Just a general statement… Do/are they following the standards they're there to support?

>> David O'Neill: Chris, it's a great question. I can't speak to whether or not these companies have VPATs because I'm not informed on it, but I can refer to articles that were written by colleagues where they did test the actual overlay, the widgets, and I don't remember which company it was, and they did test the widgets to determine whether or not they themselves were accessible and found that under a number of circumstances that they were not accessible. Some of it had to do with magnification and overlapping of content. Things that we typically would look at when we do manual audits, and we become more attuned to. That these products did not comply with success criteria that we use in our testing, so I think there are issues there.

>>Chris Law: It sounds like VPAT for a one wheeled wheelchair. There were a couple of hands raised. Madeleine, you can come off mute and share your video if you like.

>> Madeleine Rothberg: I'm in agreement with a lot of what I have heard here—so this is not a denial of everything that everyone's experiences have told them—but, I don't know how far we are going to get with the hostage-taking argument. What I have seen with a lot of commercial websites is that they change so fast anyway that a temporary fix might be perfectly fine to the client. I have worked with people who hire us to do a full review of their website and we give them lots of good advice, then they come back to weeks later and—two years later, sorry—and I think "Oh, they're here to ask us to check all of the work they've done over the past two years." And it turns out no, they have implemented an entirely different website in the past year, and now they want us to look at the new one. And we don't know if they ever used the advice we gave them last time. So, even customers who I have worked with a more regular and ongoing basis who are implementing the advice we give them, and making changes, if we don't hear from them for six months or a year when we come back their site has significant changes.

I know there's a lot to do around the maturity model and getting accessibility into the development stream and that's a different set of questions. I'm not sure that telling a company "this will only keep your site accessible as long as you paying them" is actually going to dissuade them. Because they might do a whole overhaul in six months anyway. The argument that I often use, that I think is still valid, is that by the time you do the work for the overlay to work well, you will have done most of the work to make the site accessible.

If the overlay can change the color and contrast and magnification, surely the site has been designed well enough that user tools can do it, too. That's been one of my major arguments. I love the part where they are hiding from the testing tool though, that's especially exciting!

>> Anil Lewis: I like using the "hostage" because it gets their attention. You are right, if it's not an entity that's constantly refining and redesigning, but more and more, I love back in the days when the web was new, we didn't have to worry about accessibility being changed because they weren't being so agile and dynamic around the place. I think there's still some out there.

But, I like using the word "hostage" because I think it gets their attention. Your point is very well taken and I appreciate you sharing your messaging as well. The overall point I try to use is to get their attention, and to get them to focus, is that there are choices they can make that they may not be aware of that may not only be less expensive, but also provide them an opportunity to develop an infrastructure that's stronger. The goal we have is to encourage companies to adopt an enculturation of accessibility. Not that there's an entity within them that speaks to accessibility, but everyone part of that process understands that accessibility is part of what they should be doing it… focusing on. So, I appreciate that feedback.

>>Chris Law: Would you say, to follow up on what you said, if a company starts off a dialogue about enculturation, is putting—say they are starting from a point where they don't have any accessibility at all and there are still companies out there like that—they say, "should we put on one of these overlays while we are getting everything else fixed?" Is that a reasonable suggestion?

>> Anil Lewis : I would let them know the pitfalls, I would never advocate for that to be the solution. But as I have acquiesced or yielded in these discussions, there's some utility as long as it is defined. I always come back to the point that I think a lot of people feel it's more difficult than it really is. The amount of time it takes to invest in teaching your content developers on how to make things accessible is a better utilization of your resources, both financial and human.

To Matt's earlier question, they don't really have a web development staff, then try to find third-party contractor to help you develop your website that is not overly dependent.

>>Chris Law: There are better alternatives. Yeah.

>> Karl Groves: This is going a different direction entirely, but we don't… There's no problem with expecting developers to understand security or expecting them to take security seriously. Platform and operability: "You didn't tell me it had to work on Firefox!" You are never going to hear that. So the idea that the developers get surprised by accessibility?

That's excuse-making that I don't think we need to be supportive of. That's unfortunately a completely different discussion. Matt's question, it hit the nail on the head which is, I just got told I can get 100% compliant, what do you mean I have to hire a consultant from Deque Systems, Inc. or Tenon. we all charge the same rate and it's not cheap: "But you are telling me I can pay $400 a month to be 100% compliant? Done!"

I can't tell you how difficult it is in sales calls when we are talking about our automatic fixing product when I tell them no we are only fixing 35% of things than having them ask why should we buy it?

Because we are honest. They are probably fixing less than 35%; they are just giving a bunch of crap. It's hard to overcome that stuff. Now I'm just ranting!

>>Chris Law: It may be something we get back to in our statement, or the question about the statement.

>> Alan Hoffman: Can I do one quick thing? There's a lot—and I mean a lot—of people who want, for a business, a cheap website. We won't name names, but there's quite a few in place with those templates to chop-chop and fill in a few blanks and now you have a site. I've seen them for doctors offices and auto repair services. The range is amazing.

I find websites are often left to the last thing, or the least important thing. But they really want one. It's a weird dichotomy but the point is some of those vendors making those cheap template website products are starting to move in a direction of "okay, fine, when we do that we will be pretty accessible". In the short term, as those things roll out, we will see a lot more progress on those small cheap websites, that they won't pay the money for real customized manual testing.

I am hopeful that those templated low-cost website providers will change that picture, because you won't need any of these overlays. That's a lot to get an overlay for something like that because they didn't want to spend the money in the first place.

>>Chris Law: Yeah. All right, onto another question that we have from Ameenah. Before we get to your question, I want to tell everybody thanks for the questions that have come in. I have a final question that will take up the last 10 minutes so if you have additional questions for the panelists, feel free to put them into slack for those questions to be answered after the end of the session. With that, we will go to the last question from the audience.

>>Ameenah: Are overlays only being used strictly for websites, or are they entering the software server cloud delivery construct/planning applications? I am concerned if we continue down this overlay path and let these companies do that and it enters into that space that I just referred to, we are in a lot of trouble because now we are on a collision course between accessibility and cyber.

>>Chris Law: Who wants to take that one?

>> Alan Hoffman: There's one for SharePoint that's not necessary. There's a lot of people who didn't want to upgrade their SharePoint. I'm naming names because it's out there. I know some people love it, but that would be an example of what you're talking about. Your SharePoint could've been the cloud service. I haven't seen a significant amount of what I would call overlays like bundled with the cloud type software service, but it could certainly happen. For things like that, enterprise.

I don't see anybody throwing overlays on top of Google products, either. I think right now I don't see that happening, and I tend to think it won't happen in the near term.

>> Anil Lewis: Part of that is because they are really understanding inclusion of accessibility and enculturation of accessibility. So, Microsoft… the OneDrive solution is working for me quite well, so SharePoint is a nonissue for my utility of it. We have a very good relationship with Microsoft and Google and they are not only taking it seriously but hiring people with disabilities and doing more integral testing across departments, but they are also making sure the tools they use—that they provide for people to use—also have accessibility built in. You can go into any number of the Microsoft

products and see that they have tools to help people create accessible everything. Documents to emails, etc. That's going to help spread throughout other entities, too. As Al was talking about small templates. We have been working to let people know "You can use WordPress to create an accessible web presence!".

Hopefully we get to a point where people recognize that accessible coding is just good coding.

>> Ameenah: I'm thinking of a specific company at a specific context.

>>Chris Law: It sounds like you have work to do there.

Thanks that was a great question. Now I have to move on to the final question for the day. The final question I have for the panel, and I'm going to preface this question, because the in the question I say the professional disability testing community, that means people who attend ICT. ICT itself is not necessarily an organization, per se. At the conference that happens with the committee and that sort of thing, we post materials and resources to help people. The W3C is an accessibility testing community, sort of. At least the WAI portion of it is. IAAP, is another community, GSA is another government community, in effect. I mean "community as a whole". With that preface this is my question:, could or should there be a collective statement on overlays and/or some sort of guidance from members of the professional accessibility testing community that goes out to website developers, the public, and others who are concerned about this on overlays? A statement or a resource site?

One of the things I thought of in this and took a note from an earlier comment is this could be an opportunity to educate: to say actually making a website accessible to begin with isn't that hard. But on the overlays themselves, for the panel, do we think that coming together and doing something like this is a goal we should aspire to? David first.

>> David O'Neill: That's an excellent question, Chris. I think timely, in where we are right now with technology and accessibility. I think the things we can do would be number one to acknowledge that there's a gap today in terms of solutions for the marketplace. That's to the point that Cindy shared that, "are we doing this right?" If people are gravitating to what we know to be a bad solution, that means something is missing.

Or… we're approaching this, and we can do better. And we are beginning to acknowledge that there's a gap today. And I'm not saying we know what that gap is 100% right now. The next thing I would do is highlight—I think we as community should highlight—the flaws and dangers in the current solution-sets we see in the marketplace. It's natural for these types of capitalistic societies, we are going to rush with solutions to fill a gap, and the first one isn't necessarily the best one: it will be the shortest path to dollars. It's natural in our society.

What we have to do in the same breath is recognize that innovation around "healing" technology, right? If we didn't have human technology, the first modems wouldn't work. Imagine if modems didn't fix themselves while they were transmitting bits of data over the telephone line. If they didn't have that ability to detect that "Hey, we went off the rails, let's fix this!", we would've never gotten an internet. So, self-healing technologies are important and we can't discourage innovation around that.

Finally we have to say, that innovation… where does it belong architecturally in the scheme of things? I think to Anil's point, this type of innovation belongs back at the authoring stage of accessibility where if

we can create healing technologies, getting them to the IDEs, get them to the developer environments and content environment so that you can see, what you are doing is bad: here are some ways you can do it better or fix it.

I think somehow whatever we do if we could keep that broad framework in mind, I think it would be very, very helpful.

>>Chris Law: Panelists, what do you all think of David's point there? Let's go with… Cindy.

>> Cindy Rowland: It's complicated!. I can't help but think how important it is for us to challenge what is being purported and done. At the same time, how petty we sound, as a field, to whine and complain that someone is doing something that we haven't been able to impact, at a broad level, in ways that have. Or are starting to, I should say. I say to myself, "should we make a grand statement?" We definitely need awareness as to what's going on.

It's not going to be a clean message. Not every overlay is bad.

>>Chris Law: I take what you are saying about making some sort of resolution statement, but let me bring Anil in. National Federation of the Blind makes proclamations and statements. Resolutions.

>> Anil Lewis: I don't think we would ever resolve to condemn overlays. I want to make sure my messaging on behalf of the organization is correct. The word I have been using, that key is "utility". Necessity is the mother of innovation and invention, and laziness is the father. I think overlays lean more on the lazy. But do they have utility? Yeah, I have talked about that. I'm not going to oversell the utility because my goal is to make sure that the entity creating the web presence or whatever the technology is enculturates accessibility. I think over time it will evolve to "overlays are very little needed". If there's a company that doesn't have the wherewithal or resources and they have this present, especially that something blind people need access to, I'm not going to say don't use an overlay. What I'm going to continue to say is don't be dependent on that as a solution, because we are optimistic and hopeful that those entities that are creating services and access to information that we need will be there for a long time and we recognize that the true benefit is if they have the wherewithal and infrastructure to sustain that over time. Having to depend on that third-party entity to sustain that… that's an X-Factor that we are uncomfortable with. I applaud a lot of the third-party AT consultants in that strategy. Karl was discussing different ones that have overlay components that are being used in a way that I feel is appropriate. Using that to educate their customer and dev team how to correct it so they are not perpetually coding stuff that creates the need for an overlay. Regarding your question, I think a statement that really promotes more awareness so that the customer or the organization isn't subject to the marketing of the necessity of an overlay would be a good statement.

I haven't read the articles, but I intend to read them. And, as long as that messaging is there and allows the customer to make an informed decision whether they feel overlays are of value to them and how they operate, that is there decision. And, I will be very candid, if that conscious decision results in an experience that's not accessible, we will first try to work and partner with them, if we feel that our blind and low vision customers need access too. But, again, we are strategic with our litigation.

Going into it and being aware of what the potential circumstances are—but, again, I don't want to lead that with a "threat"—really going into it knowing what the real benefits are by enculturating accessibility and acquiring that skill-set as internal resource is what I would really like to try to promote.

>> Cindy Rowland: Do you think this statement would be a broad statement to the public or would this be to the accessibility testing community?

>>Chris Law: I would think of it as something "to the accessibility testing community", but there's also… in some way public and available to anybody who wants to write about it. And, collectively, for people in the accessibility testing field to say to their customers: "this is the statement from our field about this type of thing."

We are right about out of time, and we are about to lose the captioner. So, in terms of this final thing, should or shouldn't we? Let's have a quick vote of "should we?" and we will figure out the logistics later…

>> Anil Lewis: I would say yes, but I also interpret it as a broader statement. So yes.

>> David O'Neill: Yes.

>> Al Hoffman: Yes.

>>Karl Groves: I'm gonna echo exactly what Anil said. Sure

>> Cindy Rowland: Same with me. What Anil said.

>>Chris Law: Thanks everybody! That's a great note to conclude and we will figure out the rest later. Thank you very much for attending this session. Thanks to David O'Neill, Anil Lewis, Alan Hoffman, to Karl Groves and Cindy Rowland. Thanks to Stacy for hosting.

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