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>> Hello everyone, this is Sandra, I am a training manager for if they cut university, we want this to be an interactive webinar so we are excited to have you join us. Joining us today on our panel we are exciting to bring this webinar to you, at questions we will -- if you have questions we will announce when you can ask them, you can type them into the chap on and we will have the -- chat pod and we will have a Q&A section at 2:45 PM.

>> To get started today is a Jake up -- Jacob -- [Indiscernable Name].

>> Thank you, Ed GSA I work with a lot of people that are starting to think about mobile . A concept that comes up a lot is mobile first. We want to talk about the agency's take on the response to design.

>> We have some agencies that have implemented this design they will tell us about their experiences and the things you need to think about when using a mobile first approach.

>> To kick it off we have Jeremy Vanderlan who is a content manager and technical lead, he will go ahead and get it started. Jeremy are you out there?

>> IM. Thank you -- I am, thank you. I am going to talk about AIDS.gov responsive design, we launched this last week and it is early return to see how this design will be performed and received. I am excited to talk to about this today.

>> Jake up -- Jacob did a good lead, I am the cochair for IC of mobile international -- ICF international and a technical lead.

>> To 27th is national HIV testing Day, it is a big day and we see a lot of traffic to the AIDS.gov website. It is important day -- an important day for us I will give us an overview of what the website is.

>> We talk about the approach to responsive design and the considerations we made, and review some of the challenges and choices are round responsive design.

>> There are significant decisions that you need to make in how you approach responsive design and also what your content will be once you decide to do it.

>> Getting into responsive design, that's talk first about what it actually is. Many of you might be familiar with it, it could be a refresher, I want to set the baseline.

>> When we talk about responsive design we are talking about fluid grids, being able to change dimension depending on the screen size, you were thinking of content containers, they are in some kind of grid and you are able to do I just meant based on the screen.

>> It also means flexible images and media, you want to render appropriately depending on the device that is visiting the site.

>> Finally, when it comes down to it, the essence of responsive design is media queries. It establishes design breakpoints.

>> I will open up a browser and show the GSA -- AIDS.gov responsive design.

>> This is the site, I will squeeze the browser closed really quick, you will see as you watch the screen close, you begin to see some of the media is kick in -- media kick in.

>> The first thing would be an iPod portrait view, if you keep an eye on the AIDS.gov low go -- low go -- logo, you will see it switch. When you go through and continue to squeeze you can see where we kick in a landscape view or the view of the kindle fire or smaller tablet. This might be the landscape on a mobile phone.

>> As we get smaller and smaller, parts of the site collapse on itself, and it is now a single linear call him -- columg -- column that goes down the page.

>> Getting back into this it is important to talk about the AIDS.gov project as a whole, I do not think we would be here doing a responsive design site if we had not done things along the way .

>> When the site first launched it served as a conduit to steer traffic to CDC resources and the national Institute of health. That is where most of the content offered by the federal government was hosted. It is a basic site that served as the gateway. In 2007 we created our own content, podcasting, twitter, , we began to expand what AIDS.gov could do .

>> In 2008 we launched a blog.

>> In 2009 we really decided to redevelop the content on AIDS.gov and offer basic information on HIV. Most people are coming to get they think HIV information. Realizing that, sending them to CDC was not doing them a service, we wanted to have contents of our own on the site, it was an important consideration to make.

>> 2009 we launched the HIV and AIDS service provider locator, it aggregates feeds from her son -- HRSA and some other agencies as well as having an urban development hud.

>> There are several things dispersed across websites and we aggregated all of that information and data points and mapped them on a Google's map interface. It pulls together the resources into a single platform, you visit there and you get all of the information.

>> I think it allowed us to begin to focus on mobile because it was location-based information.

>> In 2010 we launched the AIDS.gov mobile site . It give us more information on people that were visiting AIDS.gov via mobile devices .

>> In 2011 we released a locator API and a facing AIDS campaign as a responsive site.

>> The facing AIDS campaign allows people to take pictures of themselves and it is a slogan that says I am facing AIDS and it is a way to reduce stigma around the topic. It is a way for people to share their pictures and upload them and share messages about facing AIDS.

>> It is a simple site and we realize to tackle responsive design we wanted to start small. We've built basting.AIDS.gov -- facing.AIDS.gov as a the sixth site and then in 2000 site and then in 2012 we released the basic responsive site.

>> We have adhered to web standards for a long time primarily because we want to be able to support all web rousers and web standards is a baseline -- web browsers and web standards is a baseline.

>> We reorganize your content, it was key, I responsive design site does not need to have its own set of content and have some specialized content to offer.

>> When we reorganize the content we separated the content and presentation so that we really have it open up are in such a way that it emphasizes a mobile view first. The contents will be simple, it will not have significant styles associated with it or classes or IDs, it will be simple. If you turned off jogger -- JavaScript and CSS it would be a simple presentation.

>> Finally we wanted and emphasis on mobile for the AIDS.gov project. In order to achieve the goals we needed to emphasize mobile.

>> That got to the question of why do we choose responsive design?

>> There are a couple of main reasons, first of all, mobilesearch,, the top mobile health related searches in 2011 work for media, bipolar disorder, depression, herpes, and smoking or quit smoking. I like to call these help unmentionables, this is very different, it is different from what you'd see on a desktop search. These are the topics that people are looking for.

>> We found this with the mobile site, people came to AIDS.gov and they were searching more explicit and descriptive terms to get to AIDS.gov , can I get AIDS from, Blake? -- blank?.

>> We realize we were meeting and needs.

>> They use mobile more frequently to access online resources, there is an opportunity to deliver information to those most likely to be a risk for HIV.

>> We needed to deliver a client-side solution. We tried to implement some device detection when we initially launched the mobile site. There were some restrictions on the server environment so we did not get to do all of the device detection that we were planning on doing.

>> We realize we did not want to do a lot of device detection in the future we wanted to do client-side it. Responsive states that mold -- states -- fits that mold.

>> Future friendly, we don't know what's coming next, but we have observed how quickly the mobile landscape have changed an understanding that things could be completely different one year from now on there could be a new device that supersedes anything that android or iPhone have done and we would need to account for a. Rather than redesigning a site or redeveloping a site, responsive design allows us to look you with the screen sizes, look at the features, and design for it.

>> We have all of our content there, we just need to create a new media query, it is the future friendly way of approaching it. Things will be more complex in the future and we want to be ready for it.

>> We have seen exponential mobile growth for AIDS.gov. In June 2010, the mobile traffic was 2.5% .

>> That would not necessarily justify mobile implementation, but fast forward to June 2012, mobile traffic is 25%. That includes tablets, and mobile devices. We are looking at tenfold growth, and that is just proportional, we also saw an increase in visitors over that same period of time. There is a large number of people coming to AIDS.gov on mobile devices , way larger than we could have anticipated.

>> Some challenges and choices that we had to make, first of all, just navigation. The content itself is fairly deep, we are looking at 3 to 4 to 5 layers, when you think about navigating that especially on a mobile device, having a nice big menu that you can drop down on a desktop is great, but drop downs on the mobile device or questions -- are questions. We had to come up with a solution that would work for smaller devices, we came up with the mobile view so that you just see the section that you will be an, -- in, so in this case they show HIV just diagnosed, and then you can scan through those headers on your mobile device.

>> Responsive images, there will be images that will be too big to load on mobile devices. We had to come up with a way to do that. There have been other developers that have done great work in this area so we piggybacked on what they did, and the filament group that did the Boston Globe framework is similar to what we used. It is how we sort images. It allows us to deliver a small image first and once the browser recognizes that it is a larger screen size it delivers the larger image.

>> We had to make sacrifices as well, the old site was a flash-based pod gallery, it was a nice feature ahead sorting and search, and it also played multimedia for AIDS.gov . We recognize we could not carry that forward. Instead we are relying on people being able to download to their devices. We have jettisoned/and left it behind and we are linking out to YouTube and allowing people to download, things like that. It is a sacrifice that we had to make in choosing responsive design.

>> One feature we did introduce the I am excited about is touched to the interface. If you are on a touch-based phone like an android or I pad, there are components of the site that allow you to swipe. It is becoming user expectation, I'm sure maybe of you -- many of you have seen the baby trying to swipe a book, she is so accustomed to seeing it on and I pad that she thinks she could swipe it as well. It's become a natural reaction and I have my at me later -- emulater out here so you can see that, this is a

swipe event. You would not be able to see this on a desktop because there is no touch event. You can see how that would work.

>> Another big consideration to take into account is performance, even with responsive images I think we are delivering a lot of information, page size is really important, mobile users, especially those not on a WiFi will be downloading a larger page. We have come up with some solutions but I am not satisfied with where we are at, I think it's an improvement we can make and it is something that needs to be brief -- approved -- in proved -- improved overall.

>> Responsive design result in more calls to the server. We have older browsers such as the Internet Explorer seven to show the view, and it does impact all the devices across the spectrum. In this case, solutions are a involving -- evolving. Responsive design is a new comment -- content and we need to pay attention to it, when a solution comes out that is web-based we will jump on it.

>> The last thing as social media can be a huge performance hit. We embed it in the Facebook like button on the site and in doing testing we realized it was slowing down the page significantly, second set a time, so we just included the banner that you see there, like us on Facebook, we are not using their social media components because it was loading way to slow and impacting performance in a significant way.

>> Alternately, a lot of what you have to do relies on device testing. You have to get on a device into it. Most of the bugs we found, especially once we got the layout right, were when we actually took out and I pad or tablet, and iPhone, or a Blackberry. That is where we found all of our bugs. We saw a perfect design in the browsers that we were building and, but as soon as we got into those devices we saw lot of bugs, bugs in the menu, and how things reacted. That is really at the core, if you are going to approach responsive design you have to test on real devices. You have to be able to do as much as you can of this.

>> We went across 13 to do the device testing, we did not have a particularly large library to choose from. At one point I was in a Sony store and opened up their tablet and use a different browser to do a quick test on a staging site.

>> It does require ingenuity and working outside of the box, but it is definitely something that we had to do.

>> That is a quick overview and there is my contact information, if you have any questions feel free to contact me. AIDS.gov resources across social media as well.

>> Now I will hand it off to GSA -- Meghan for the next presentation.

>> Thank you.

>> My name is Meghan daily -- Daly and I am a content manager at GSA Here is the agenda we will go through today on our pilotprogramm for responsive design with the apt galleries, we will talk about the history, the pilot program, the pros and cons to responsive design, the lessons learned, our future plans, and some before and after screenshots.

>> We created the original apps gallery to provide the public with government related mobile solutions and allows simpler access to services and information and provide new ways for citizen engagement.

>> The apt galleries are just one piece of the overall mobile strategy, and apps in the galleries are free and must use government data or provide a government service.

>> A little history on the apps gallery, for USA.gov we launched in July 2010 with 20 apps. Now we have over 115, there you can see the breakdown of apps that we do have.

>> We have had over 1.3 7 million visits to date.

>> The apps gallery luncheon April 2011 and there are 11 apps and over 66,000 visits so far.

>> The two most popular apps on USA.gov and Kobe are no -- Gobierno is the BMI calculator.

>> Before launching into responsive design we met with key stakeholders in developing the strategy. We identified the audience and the content that we wanted to have their. We studied responsive design on various public and state government sites and discuss the pros and cons. We also talked with one of the development -- developers for Rhode Island.gov. It is similar content to USA.gov in terms of topics and similar content base.

>> We decided it would be a good pilot to do for our apps gallery. We worked with the contractor to build a prototype and from there we tweak it to make sure that the design worked and accessibility guidelines for Matt.

>> We launched in April of 2012 and again I mention the apps gallery was a smaller site that we had in responsive design. We wanted to see how would work and see if it could potentially be a good fit for doing our mobile site and/or classic site.

>> It meets the devices of today and the future which I know Chairman you mention. One of the features that we did add to the new apps gallery is that we have five featured apps at the top of the rupee between them. Based on user comments and e-mails we added the ability to sort by category. We added device detection so that if you are on an android phone only android apps and sites will display. We added multiple screenshot images or you can see what your experience will be working through the apt. -- Application. We added ratings that we pull from the Apple store an android store. We built it on an ATI so that other agencies can leverage and use it as needed.

>> As we mentioned, the majority of the design was done by our contractor. That we had a big team of government employees that worked on the design including developers and accessibility specialist, graphic designers, content managers, and usability specialists. They used the 320 and up an HTML 5 boilerplate to build the site.

>> Some pros and cons that we have found. As Jeremy mentioned earlier, responsive design allows it to respond to you in your device and is ways accordingly. It needs to vices of today and the future. We don't have to spend more money down the road to adapt the site. It is the single version of the site so it

is less maintenance. You can share links across all platforms and devices. It is future ready. It it utilizes the mobile content strategy. Some of the cons that we have found is that it takes a lot of time and resources. The device compatibility was an issue and cross browser loading time which again have been mentioned different devices have different object is not was a challenge.

>> 508 compliance we really tried hard to make sure that all accessibility standards were met and we had to do some workarounds to get their.

>> Again it does not necessarily work on older devices. We still need to use a plain webpage for that. One aspect of the project included moving apt galleries into the existing CMS it saves us time and money and helps us manage the products in one central place. Also the cost saving of responsive design is that we design for the current device and any future device that may come out on the road. Because the built-in on rest API other agencies can use it.

>> Some of the lessons learned that we have in this pilot program is that we want to derive the process earlier a specially designed. Through this we have learned that we have some guidelines that we have created for accessibility so that they can be used throughout the process.

>> We also want to develop some opt to liberals of and cases to ensure that the layout works for any case that we have. That is one thing that we plan on doing for any future project with responsive design.

>> One thing that was suggested is that we shorten the framework first and load testing as well.

>> We also want to have monthly reviews of the progress and decisions, we want to build that into the timeframe and have more rigorous time technical decision points. We want to have a better schedule for the review process and take the time to identify common elements for each resolution. Because we use agile development process it was tough to predict the timeline. Next time around we will incorporate agile of it, but also typical development processes.

>> Some of the future plans we want to incorporate user comments and feedback directly on the individual app pages, it is something we are looking at adding. We want out of mobile survey. Right now people submit a suggestion via e-mail so we want to add a mobile site submission form. Because of the pilot program we are focusing on using responsive design for other mobile sites and redesigning the classic site in responsive design.

>> Here is a screenshot of what apps.USA.gov looked like before. It was just a rotating screen, on the classic side there were page numbers below that you could scroll through. After as you can see there, the rotating panel at the top features five different applications and other classic site you can filter by various devices and sort by the newest apps and by category which I think is really helpful. Here is just another display a before where it just had the screenshot on the left and information and download button on the right. Now we have the icon with ratings and the download button and the share button on the left-hand side with description and screenshots on the right.

>> Here is my contact information as well as Ward Godfrey. Thank you for your time, I will pass it over to Ryan.

>> Before we get ran on here I would like to point out that if there are questions please put those questions into the chat box and a -- at about a quarter after we will read the questions. At this time I will pass it on to Ryan.

>> Thank you very much. I will get set up here and get started.

>> Does that look okay?

>> Yes it does. I am Ryan Day and I have William Wales here who is my supervisor. We are going to give you a case study of the responsive design that we finished. We will look at the business drivers for mobile family that were driving the project. We will talk about our current approach to mobile here in our shop and we will show you some of the first up that we took in mobile development and the project that we've done recently using responsive design. I will get into some detail button bolts into how we went into development and implementation and we will look at the tools that we used and testing and future plans.

>> The business drivers for us, keeping up with what Jacob and Gwen's group to with the mobile governor efforts. Mobile browsers isn't increasing rapidly. Specifically within GSA, a lot of them have android devices and IOS devices, both have looked and phones. We began quickly to get feedback from our customers that would be visiting the site wanting to know why does it look this way on a mobile device and when will it be mobile friendly?

>> The target for us and our portfolio of various web these applications, a lot of them will in turn all, some of them externals. We wanted to know in a tactical way how we could make those more mobile friendly.

>> What we found from this end is an evolving thing that we are looking at is we are no longer asking will this page or this application be viewed on a mobile device. The reality is, all of our pages will be viewed on a mobile device by someone. The question that we ask is what experience will they have when they visit on a mobile device?

>> To give you background, all of the stuff I'm going to talk about has happened in the last year, most of it in the last six months. We started looking at the existing contents only pages. We had up front user guides and frequently asked questions pages that were content only, not interactive. We also had several information portals that were content East and we took a few of those that we targeted and created separate mobile pages that had all of that content and it. You can see the content on the slide, we have an example on their. We created a separate mobile page, redirected them using client-side redirection to a flash mobile URL, and we used a mobile framework. We ended up using Jake very mobile for that -- Jquery mobile for that. This is not responsive design, this is separate, we think it makes sense in cases where you have an existing site and you want to leave it intact you want it to be mobile friendly. It might make sense to greet the separate pages like we did. We then use responsive design, and that is the development of a new set of pages. We have new information portal, these were content pages that we designed from the ground up will. -- Ground up.

>> We use responsive design for this, the outcome is that we wanted a consistent look and feel and we wanted it to be consistent with the other GSA sites. We were looking at other sites and using their style guides for colors and layouts and things like that.

>> We want to do layout to change based on the bison -- device weight -- size. For responsive design we strictly wanted to look at the way it -- size of the screen. We wanted a user interface to be more applicable, basically that had to do the buttons and links, you can have near as precise interactive elements as you can with the desktop display and a mouse. In some cases we wanted to limit the content so large paragraphs of text that were not vital we didn't want to display on a mobile device. A key for us is we wanted to see if this would work for real. We took a pragmatic approach, we wanted to if it works develop reusable templates because the goal is to speed future development. We wanted to see if we could get responsive design so that we could use it in all of the applications and it would be a baseboard.

>> I will show you an example of what we implemented. Here is a view of the information portal on the left-hand side you have what mobile design looks like, and that is anything displayed at 480 pixels or below.

>> The right hand side is a typical desktop, anything 480 pixels or wider.

>> During the development process we experimented with the breakpoint to see if it's happily -- tablet -- see if the tablet specific view was necessary. The tablet and desktop work together based on interactive elements being large enough.

>> You can see here, this is the finished product to. One of the big benefits we thought right away is because we did not have to create a separate mobile page from the desktop page, it saves us a lot of time and effort and as updates happen to this information portal, like frequently asked questions, if we were maintaining separate pages that would be doubled after and things could not be in sync.

>> This technology that we use for implement in this was very simple, we used HTML 5 cascading style sheets three. We did not use JavaScript at all. For future functionality we've identified some things that we will introduce Java string libraries -- JavaScript libraries, but we've done this with the most basic of the responsive technology with the goal of making it usable in speeding the development process.

>> Some specifics about our responsive design, it uses a fluid grid which means that our layout is no longer specified pixel location, this would be pixel perfect for the developer goes down to each pixel and where each component of the page will be displayed. We have gone away for nine use of fluid grid using percentages and other techniques that basically I love the design to shrink and grow until in the available space as appropriate after the image is shrinking so that it is more responsive.

>> I will show you specific examples, but we implemented a basic style sheet for all devices and any mobile device that comes in, even the older mobile devices will get the base style. Then he includes specific mobile form and King -- formatting for mobile devices.

>> We have a separate style sheet applied for larger displays, specifically desktops and habits in this case.

>> I will mention the word mobile first, by doing the least formatting, the least amount of images and the mobile design as the first style sheet the loads, it can potentially save some seconds for the display on a mobile phone and larger devices would load next with those style sheets. As the first speaker mentioned, performance is key especially when of devices not on WiFi.

>> Here is an actual HTML code of power page works. There is a section that shows links to style sheets, it shows that they all get the childcare styles, this is a common style sheet along with mobile specific items.

>> Down below where it says mobile devices additional formatting, this is from the style sheet itself. As you can see this is a media query that Jeremy mentioned. For the mobile devices they will get additional specific formatting and the output is what you see on the right. Similar to the other ones, single column layout. The menu has been changed so rather than reacting to the hovering of a mouse that has persistent buttons that stay in place and work better for mobile layouts.

>> On the desktop display the next style sheet is implemented.

>> You can see media equals all, it is an additional media query that happens inside the HTML page and the long and the short of it is that all lot of that display has been overwritten by new styles so that it displays this way and the same contents is being displayed wider, we have multiple columns and images that were not displayed previously. There is a lot of other techniques that go on behind the scenes, but that is the basic of how we made our is responsive.

>> The next page talks about the tools that we use, there is different developers, we use one is a clip spaced and we use it for HTML and cascading editing. I will also demonstrate Rome developer tools that we used in the process because it is a useful tool the people learning the techniques could use.

>> In the chrome browser, the tools window is displayed and the benefit that it gives use you can click on any element in the document and to the right it shows what styles are there. It also shows what style sheet was used to apply them.

>> In this case you can see that it is displaying white and that was online 358 of the style sheet.

>> I would recommend as you are reviewing approaches visit some sites that have a responsive layout and use the tech meet to see them traced down how was implied in the style sheet.

>> We used the chrome browser extensively. It has a WebCam and gin inside it which is similar to an IOS device. It is excellent for watching responsive design in action.

>> Typically a user will come to a webpage in one display or another. But you can see that as a page it plans -- expands it applies different rules. Here is the tablet and you can see that as I grow larger there is an adaption of images and other our men's.

>> That is a useful tool.

>> I also want to mention that it can be used for user agent emulation so that it can smooth and iPhone or android device.

>> This is also a site that checks and verifies based on the coding of the site. We also mentioned standard development, we tried to follow that. We ran the responsive site through this and got similar scores. And then we head to the fully specific one, it was a good validation.

>> I can't emphasize enough to use real devices as Jeremy did. There is a lot of simulators but they would have things that they will not show you. It is vital to have real tablet confounds to test on.

>> Future plans for the project. This all happened recently, but we are going to look at the application functionality and the interactive tasks and forum's and see how responsive design can be applied to those as well in addition to the content pages.

>> A key for us going forward is investigating the truncated management system and content management systems that we could manage the pages and keep them consisted. We could apply consistent templates and look and feel. Many content management systems have mobile support built-in and they are mobile ready and you can be applied immediately. This would follow the digital cup strategy to use this technology.

>> I will turn it back over, that was the end of the presentation.

>> Thank you so much. We have about 10 minutes left in the webinars to keep forwarding your questions to the box, I will consolidate and I think overall the biggest and most popular question I have seen come across the line is about how you take the existing content on an existing page and make it responsive or mobile ready? Can each speaker talk about that? I will start with Meghan .

>> That has been I would say, the hardest part of responsive design. We kind of had a little bit easier because the content was not going to change too much, it was apt name in the description, so the contents was the same. But now that we are focusing on mobile sites, it is a challenge. We are trying to drill down to the content that we want to display and it starts larger questions about if we want the same content that we have on the mobile say on the classic sites, again I think this is where the major part of your time will be spent, on content.

>> It should be because that is the most important piece.

>> Jeremy and Ryan, do more input?

>> This isJeremy.

>>> We were at an advantage in that we had Artie done a mobile site and we are using CMS. We were actually publishing through a couple of different sites already and using the same content to do it. We

actually found that we could adapt a lot of the content quickly, but we definitely had issues as we look at specific pages like our podcast. The home page with completely new, and in designing for touch we had some new things that we had to develop for. Some of the content will be there, but you might have to start from scratch, you need to consider how ready the content is to start responsive design.

>> I would also add that you want to talk to the system owner or owner of the contents. It may be that not all of the content is needed or make sense in a mobile to Bierman -- environment, though that is less true than it used to be.

>> People are coming in looking at search results that you were getting, that will drive it.

>> It really helps for the presentation to be divided from the content. So any site needs to be using the web standards and using stylesheets have only so that the HTML and content behind it is separate from how it is being presented.

>> Thank you very much. We have a couple questions about simulators, Ryan and Jeremy, do you have a favorite that you use are there ones that are coming out that will be more helpful?

>> There are a couple out there, I would say that they are great to get a feel for what it will be like on the real device, but no simulator can substitute for what the device will do. There are some really awesome packages. One that we use is called Weinre\ -- Weinre, it allows you to do something similar to what Ryan did in and allows you to highlight the code on the device. It is really cool and you can do live device testing. You have to install it, but it is definitely one I would recommend as far as an emulator beyond what is already packaged.

>> I have used several, there are other browsers out there besides the major ones. There are emulators for many browsers and that is useful for testing on the corner cases and testing less popular devices where would not make sense to invest in actual devices for testing.

>> I agree on that as well.

>> I know Meghan talked about this a little bit, but we are getting questions about accessibility and five away compliance, -- five -- 50 a compliance. Can you talk about that little bit?

>> Our needs are different than a full-blown public website like AIDS.gov . We know our environment a little better and we can focus on what the users are having. Testing this code -- approach is a specific to mobile pages and that we test content, test functionality on each target platform and follow along. Then we identified the specific item, for instance are there to breakpoints or three break points. It also displays up to unction alley like image gallery. That was generally the approach we talk. -- Took. We use actual devices as much as possible and when we couldn't we settled for emulators.

>> We continue to do general testing and when you get down to mobile devices themselves support for accessibility will be widely varied, as widely varied as the devices.

>> Apple on the ILS has done a good job with accessibility. We did rely on that heavily to do some screen reader testing for the site itself. Once you get into the world of android it will depend on device manufacturer and you can only do so much testing I would have to say. There are how many hundreds of android devices out there now. We tried to see what we could do on a lot of them, but there is a limit to what you can do as far as being able to test across a really wide spectrum for accessibility. We did our due diligence in terms of trying to get as much as we could out there. At some point you say I don't know where I can find another device to test on.

>> We are lucky to have an incredible accessibility specialist here, she was involved in the project from day one. As we moved along in the process we got her constant feed act and she tested all of the iterations that we had, we were lucky to have her.

>> I have time for one more question for the panel asked -- panel, before I asked that question I have a bunch outstanding, if you submitted a question and those of you that did not catch the e-mail addresses of the speakers, please send me an e-mail at jacob.parcell@GSA.gov and we will get those questions answered.

>> A couple of people had questions about you -- you're handling of PDF and applications. Maybe Jeremy can speak to this more, how do you handle more complex interactions? What is the general approach?

>> I think we have done this for a while, if someone can do it better than we can we let them do it. We definitely rely on YouTube for a law to videos. They do a bunch of device detection -- for a lot of videos. They do a bunch of device detection. All of those things will be coming through. We rely heavily in that sense, but you do have some choices to make when it comes to more robust applications. If you had something running with some flash components you have to make a hard decision on how you will handle that piece of capability. If that was something you were doing previously. For example if you have a file upload, there is no file upload for IOS devices or Apple-based devices, so if you do an input it for a file and you try to upload it, there is no file structure in the IOS system. You will run into a breakpoint right there. It is something definitely to consider, that is where you get into an argument for native apps with mobile. If you specific capability and you go beyond the capability of the browser that you have in front of you. Even for a mobile browser. On AIDS.gov we mostly present content so we have been able to get around a lot of those interactions just by relying on some of the multimedia partners that are out there. There is definitely some consideration that we have.

>> Ryan, any thoughts?

>> I don't have much to add, we have not dealt with a lot of multimedia, but it is a principle of offloading not as much is possible. Technology changes rapidly and you don't want to take on the additional work of compatibility and future device compatibility if there is a platform that already has a built-in.

>> We do not have anything to add either, we will be dealing with this with our mobile sites as we move forward.

>> All right, I appreciate it, we know everyone has a busy schedule, please look for the archive of this out in the next couple of days. If you have any further questions or need to get in touch with us please e-mail at jacob.parcell@GSA.gov and I will be happy to help you and put you in touch with people you need to get in touch with. I will turn over to Sandra for final announcements.

>> Thank you so much, what a wonderful panel we had today, I really enjoyed it, I want to thank everyone for coming, you will get an e-mail in case you missed the link and you will get an e-mail requesting some feedback, have a fantastic summer and we have lots of stuff planned. We are going to meet tomorrow, and we will have a wonderful day of collaborating with our colleagues. Throughout the summer we will have data application in July, USA search, and some other webinars on digital strategy. We will also have a whole lot more on mobile. He -- mobile theory, please stay tuned, thank you so much and have a great day.

>> [Event Concluded]