

MS. ALEXANDER: Well, welcome. I'm new to this. Are you guys having a good time today? I just got here, and I asked Chris, is he learning anything. And he says he is. Has anybody else learned anything today? Well, that's a good thing. Well, I hope you learn something from this, too, and I'm really only here just to introduce Chris, but I have the opportunity to give you a little bit of background as to why we did what we did.

CATA has always been in - or has, with everyone else - started a Web site back probably ten years ago, actually when the year 2000 came around, so not quite ten years. That Web site was - we describe it like this. It's your first starter house, but you couldn't afford to move, so you added on, and then added on, and then added on, until you were beyond the boundaries of your property line and you could not add on any longer. And as a result of that it acted like it, and it felt like it when you were using it; a very disjointed - it accomplished the goal, had bedrooms and bathrooms and sinks and cabinetry, but it really wasn't doing it in the most efficient way. And it was also accessible and met the requirements. Federally, we are required to meet all ADA compliance standards. So it did that. But it did it in a very, um, maybe routine, low-end kind of way.

So, within our industry there were a lot of

pressures as well. Any public transportation users in the room? Okay, how many of you also have a cell phone, and a PDA, and a desktop? Well, many of our users, given that we have a very robust system here at Michigan State University, also have those tools, and once you're introduced to those tools, do you think you can live without them? You know, who got here without Mapquesting it, right, or who got here without doing a Google map? That's what we're finding, too, is that our customers are demanding more and more from us. They want more immediate information and they want it at their fingertips, at their command, so although we have a very nice customer information center where we have very friendly people who will help you figure out how to take the bus, they don't want to talk to those people, they want to be able to access it online. So our industry offered a number of modules that we could purchase that would allow us to do automatic trip planning online. And with the appropriate technology on buses we can actually move toward getting next bus information pushed right to the PDA on your command.

So, isn't that all exciting? Except our house, which has been added on, and added on, and added on, does not facilitate that. Well, to learn more about what we really needed to do, we did a lot of research, and the first thing we did was a usability study through the university here. They

took our existing site and they ran a group of users through it, and we gathered information about the pitfalls or the shortcomings about the Web site. When that was finished we did a few other things. We researched with some customers. We did some research with our own employees, did a card sort, things like that. And we wrote basically a plan of how we felt the new Web site should function and what kind of functionality and information is important to have. And then CATA wrote an RFP, which is Request For Proposal, and we had a couple of firms bid on designing our new Web site, one of which was Artemis. Artemis is a local web design firm, and Chris Bachelder was assigned as our project manager. And Chris is going to pick up the story from there and tell you how he took that house and basically did the extreme home makeover, right? Demolished and broke it down and rebuilt it in a way that really is much more user-friendly.

Chris is the director of Web development at Artemis, which is right here in East Lansing. Chris drew from his ten years of Web experience, and as the lead user experience architect, and manages the development of Internet-based solutions. His extensive skill set encompasses business consulting, high-end Web development and graphic visualization, and complex ideas and concepts. Chris graduated Summa Cum Laude with a Bachelor of Science Degree in Information Technology with

an emphasis in graphics, multimedia, and is currently enrolled here in a Master's program, looking for a Master of Arts in Human Computer Interaction. So if you'll welcome Chris, he'll tell you the rest of the story.

(Applause)

MR. BACHELDER: Thank you, Debbie, and thank you everybody for having me here. Just getting my presentation ready to go here.

Okay, so, yes, my name is Chris Bachelder and I'm the director of Web development at Artemis Solutions Group, and as the director of Web development I manage our team of designers and developers and I serve as our lead consultant and information architect, and I was assigned to this project as the lead consultant to coordinate the teams and the efforts at developing a new Web site. It was a great collaboration, many parties involved. Really, before I get started I just want to acknowledge some of the folks that are here and were contributing to the project. And, of course, thank you, Debbie, as the sponsor of the project with CATA, and a group from LKF is here, who spearheaded the strategic marketing plan for the Web site. And then I have my team of architects and designers in the back. In addition to that, there's another group called Trapeze Software that was also involved and they supplied some of the more robust trip planning functionality that we

integrated into the site as well. So there were all sorts of different parties contributing and involved, and we all worked together to build what we feel is a really great new site.

What I wanted to do today is just sort of walk you through the process of how we sort of made it all happen. There's a number of moving parts to this and there's a number of topics that I want to touch on because of the context of this conference. Of course, one thing that's really special about this project, I think, is that MSU's Usability and Accessibility Center had the opportunity to do a baseline analysis of the site, as Debbie described, before we developed, and then post-development we also did a test with them using the same exact criteria, same task scenarios and same evaluations, after the site was developed, so we have this comparison to see how well did we do and fare against our success criteria. That's an interesting part of the project that I want to talk about. Another thing is that within the context of how we actually did the design or integrated the features or things like that, I mean, there's so many new things going on about the site and I don't want to spend all the time talking about exactly what is really cool and interesting about the features of the site, but I want to frame it in the context of User-Centered Design and what that methodology means to us, how we applied it to this project, and some of the best practices that we tried to follow

while we went through this project, and then show you some of the results of what we hope achieved those goals. I probably shouldn't get too far ahead of myself so let me at least move on to a couple of other slides.

Just an overview, I'm going to be talking about four main points. To begin with, defining the challenge and evaluating evaluation analysis. There was a lot of upfront effort that went into this project way before Artemis got involved, as Debbie described. So I wanted to show you some history, elaborate that a little more to give you a background to sort of frame where we started, and then how we proceeded. After that I want to talk about the process, and how we applied User-Centered Design as a methodology against developing the new site, how we measured the results on the post-evaluation with MSU, and then looking ahead and what we believe would be the future challenges for maintaining the site and moving forward.

All right, defining the challenge. I wanted to start off with CATA's vision, and this came from the strategic marketing plan that was put together for the Web site, and I think this really speaks volumes of where CATA was at in terms of wanting to embrace and support the community and apply innovation. They say here that they want to use innovation to respond to the public transportation and mobility needs of the area, enhancing our overall quality of life and community. And

really, to go through all of the steps needed to actually do this the way they went about doing it, I think, really shows a commitment to the process of running a baseline analysis and what that really means for the organization, and ultimately their riders and customers. That kind of commitment, I think, is commendable and I think it returned greater value to them in the end.

Overall objectives - and these are sort of a summary. There was a lot of work done into the documents that went into the thinking behind the site and I'm sort of, you know, rather than go through all of them - and they were wonderful documents - I'm just going to sort of touch on the highlights, but some of the objectives that CATA faced in wanting to approach this project were to remove barriers of information that riders need, increase accessibility to commonly used features, integrate new features to enhance functionality, innovate further. I think Debbie had sort of alluded to the fact that the site basically sort of outgrew its capacity to evolve at some point. Once it reached that level, it just needed to have basically a new house for itself. Provide greater value to the organization internally, so not only servicing their customers is a definite must and indeed a driving factor here, but also how can they leverage the site to also satisfy some of their internal

organizational needs. And then improve the user experience for all CATA customers overall.

So starting off with evaluation and analysis. Usability testing of the original site prior to redesign, performed by MSU's Usability and Accessibility staff, their expert staff here in this wonderful facility; and then the development of the strategic plan for the Web site redesign project after the baseline analysis came back. So what had happened was they performed this baseline analysis, which provided a roadmap of recommendations, and best practices and feedback, most importantly, from actual users within CATA's target demographic. Taking this feedback in this report, CATA and LKF then worked together to build the strategic marketing plan for the Web site, or strategic plan for the Web site, I should say, and produced a wonderful document of objectives and goals the site had to fulfill. So all of this led up to a really well paved road for us entering into the project. Baseline usability testing objectives - part of the baselines usability test right from the objectives were to define what users liked and disliked about the site, so to get that objective feedback from people actually using the site. Some were CATA riders, some weren't. Some had been to the Web site before, some had not, but to get their impressions of it. Also to determine what aspects of the site are difficult to use, of

course, a very key component there. And to define user expectations of the CATA Web site. And really, you know, I think this is the most subjective portion of the analysis, and the survey results varied depending on the specific type of user, but it's really good to gauge that type of expectation and really that experience that they're expecting. You can sort of see between the cracks of what the data can't really tell you, I guess is maybe a good way to put it.

Usability testing, profiles and protocol. In the baseline analysis there are 15 testers recruited that matched the demographics of CATA's target customer base. These included downtown commuters, youth riders, undergraduate college students, seniors, and screen reader users who are blind. The actual testing involved a demographic questionnaire and background interview to get information about each tester and each user so that that could be compared to overall demographics of who's going to be using the site. Test scenarios performance - there were eight tasks that were measured where users were asked to sit down, and guided by a facilitator, they were then asked to perform specific tasks on the site which were then recorded, monitored, and tracked through observation, and then compiled into data analysis. After the task scenarios there was a post-study questionnaire survey and a post-study discussion to get more subjective feedback based on their experience. So all

of this came together in a really wonderful usability report that then gave CATA a lot of interesting insights on how to proceed with the Web site design.

Some of the expert recommendations that were included in that initial baseline analysis were to design for accessibility compliance. As Debbie had mentioned, the site was assessable, but maybe not as assessable as it could be. So maybe it supported the bare minimum requirements but could strive to do a lot better. Interactivity for route mapping and schedules - this basically comes down to increasing the usability of their routes and schedule functionality and information. In the original site there were static listings and there were reports that those were difficult to read or hard to access, lots of table information. So maybe introducing a more interactive way to produce that information rather than having to review really long table data was suggested. Consolidate content by relevant topics - so again, as the site grew, sort of grew out of its bounds, really sort of the content then was - the content had exceeded the capacity for the design to support it. So what that meant is that the navigation had to be re-thought through, re-structured based on all the different content. The new content and objectives that CATA wanted to achieve with this site, as well as sort of maybe pruning back some of the content to help increase Web readability, if you

will. Reduce excessive graphics and color elements - some feedback indicated that perhaps some competing graphic elements were detracting from the text, and some color variations might have been doing that as well, so reducing that excessiveness was something that they were recommended. Improve visibility of sub-navigation - there was an interesting sub-navigation scheme that sort of developed over time, I'm assuming, where we had a main navigation, and on the homepage, in order to get people into growing areas of content, sort of links to other pages were being built on, and that eventually sort of evolved into what served as a functional navigation. And I believe, and I think others involved in the project as well might agree, that that functionality sort of portrayed itself as a navigation, and when moving to subsections of the site and that was gone, that may have left users feeling a bit abandoned by the navigation at that point, not knowing, well, how did I get to that page if the only way I can get there is from the homepage. So, in addition to that, due to colors and maybe size and emphasis, the sub-navigation underneath the main navigation was difficult for some people to pick up on. People sometimes overlooked it and didn't realize it was there when going to sub-pages. And then lastly, adding a search feature to the Web site. The strategic plan was developed and had very specific goals as well. These are just the highlights from that plan.

Provide easy access to information for all target users. Clearly demonstrate how to use the CATA transportation system. One of the big needs for the Web site was to be able to educate riders on how to use the system, provide a resource for them to very easily be able to say how do I do this and how do I do that, how do I even get engaged so that the barriers are reduced and maybe the people who wouldn't necessarily consider riding the bus could find it more accessible because they had the information to understand how the system worked. Provide future enhancements to create a better customer experience online. And then support organizational goals such as marketing communications, job postings, and bid opportunities.

So given all of that information, again, all that great information was then provided to us and we were able to consume that and it gave us a really good background and understanding of the needs and objectives of the Web site. It defined our success criteria very clearly. It gave us really good data to rely on to make wise decisions. So moving forward, we entered the process of applying User-Centered Design to the Web site redevelopment.

I want to veer off a little bit here and talk about the methodology and sort of define what I'm talking about in the context of this project, and maybe even Web development in

general. But anyway, what is design? You know, I said User-Centered Design, and I think when I talk to a lot of my customers and cohorts, and even my co-workers, when we talk design everyone gravitates to the visual. I'm not - when I talk about design in this way I'm not talking about just the aesthetics. To me, design, especially in the context of Web site development, is not just the user interface design visually. It's a greater process to develop a system and architecture or an interaction. Anyone who is creating an architecture or flowing through a system designing content, designing a form, creating a module of some kind to produce some required functionality, the thought process going into how that actually happens doesn't have to always begin with visual design. Just thinking it through in a model and creating how the interactions will flow on the back-end and the front-end is a creative process. And that is designing. So when I talk about design it's not just visual. And then the other part of it is that I want to emphasize the design in this context is also not a separate part of the development process. I think one of the problems with modern development methodology is that they tend to approach design as a very distinct and very different step than development. I think what some of the newer methodology such as Agile and User-Centered Design are aiming to achieve is really that, through iteration, you're practicing

design and development all in the same breath and it's all happening at once rather than distinct phases. What this allows you to do is have a tighter integration between your design, architecture, and development teams so there's not that disconnect once design is made and then development gets their hands on it and then, you know, what did you want it to do now, that type of thing happens. So, yeah, design, I believe, needs to be an integral part of the development process and not separate.

So what is User-Centered Design? The way that I'm talking about it in this presentation is that it is a process and methodology, creative problem-solving around the needs of the user. It's distinct from usability. Now, I want to make sure to clarify that usability is really a goal, it's a state, it's an objective, it's an outcome of effort. User-Centered Design is that effort or that means to achieve usability. The underlying goal here is that you're getting the needs of your users involved in what you're developing. So the methodology relies very heavily on user feedback. Designing without input from your users and User-Centered Design is designing without purpose. So you always start by asking yourself, what would users do? The methodology itself, it's an interactive model of development similar to Agile. It probably had its roots in Agile development depending on - I've seen different models for

User Centered Design and I've seen different models for Agile as well, depending on who wrote them and how many very specific processes they want to create, but the idea of it is that you rapidly go through iterative processes of development and design, not quite creating a complete system every single time. Now, this is a best practice approach that we hopefully tried to achieve here with this project itself. So this is kind of where I wanted to lay the groundwork for things that we tried to do successfully on this project.

So, we start with information that we receive through the usability analysis, a strategic plan, and all the studies. We take that information and develop basic requirements and then try to build prototypes to have them reviewed by clients and user feedback. You try to get people to do cost effective user analysis. We usually grab people within our office or people outside of the project to sit down and take a look at something objectively. So going through those iterations of prototyping or designing, coding or developing, and then evaluating the success of that against the requirements, and keep going in that model until you actually build out what you need, is that iteration model. So here's a visual representation of that iteration model. And again, this is based off of typically what you would see as an Agile development process. The difference is that Agile really

doesn't emphasize user feedback. User-Centered Design does. You don't make decisions without considering the user first, and it's all centered around the user. So you start off with requirements and defining those requirements. They don't have to be complete but the important thing about User-Centered Design is that you get started doing something. So basic requirements, you prototype something quickly, you develop it just to see if its going to work, you test and evaluate it against user feedback, each time referring back to the user needs and user requirements, and then you evaluate and say, this is how we need to adjust it, this is how we need to change it, let's move forward and do it again. The purpose of this is to really reduce uncertainty over time and increase accuracy by incorporating constant user feedback. So if you look at this as a bulls-eye model, with each iteration, what you're aiming to do is to take broad strokes in the beginning to get the basic framework of what you're trying to create. As you go through one iteration, you refine it down, and you get closer to that bulls-eye. You go through another iteration and you refine it down and you get closer. Then you finally get to the end and then you've got it. So depending on how much feedback you're getting and how much information you're getting up front will contribute to how quickly you can get to that bulls-eye point.

Let's take a look at some samples. First, I want to put the new design in context of the old. So here's a screen shot of the original Web site homepage before. Some of the challenge areas were particularly with navigation. The site had basically outgrown the navigation that it had started with. So there was some navigation inconsistencies, particularly with the main navigation. There were some color schemes and icon usage that don't carry consistently to sub-pages. The content organization and presentation had sort of outgrown its container or capacity, and there wasn't search functionality built into the site. And then on the left-hand side there is sort of that ad hoc navigation scheme that I was talking about that sort of started, I believe, to direct people to areas that they would be interested in right away, which is a great intention, but it replicates the functionality of navigation to the point where I think people would expect to use that consistently throughout pages, and once you leave the homepage, that navigation has disappeared. This is a look at the sub-page, and so you can see on the left-hand side that navigation convention is gone, and you can also tell, if I flip back and forth from the main navigation, it does change inconsistently, so you can see how maybe that sub-navigation used there may have been easy to miss for some people. Another thing was that static route information was indicated as maybe difficult to use or read. So

that was the motivation behind providing some interactive mapping and scheduling mechanism to help users get that information more easily. The tabular data, I believe, had troubles with being accessibility compliant, not completely, and we also got great recommendations from MSU, as well, after ours. There were some elements after our design came back from the second analysis that indicated areas where we struggled also with tabular data specifically. It was the tabular data that was causing some feedback areas. So that was an area that we also wanted to address, and we were able to because of the second round usability test.

So this is a look at the homepage after all the efforts. So it's kind of odd to snap to this but there was a lot of - you know, without getting into the minutiae of the full prototyping process and all the different steps we took and all the different iterations that we tried with content layout and arrangement and getting feedback on that, really, that model that we used applied to all aspects of the site. Oh, and there's a lot of new enhanced functionality with the site. It just happens that in this kind of form, I think, that the easiest way to represent the change is by showing you some of the user interface elements that were changed without having the capacity to actually walk you through some of the - you know, to demonstrate some of the increased functionality. Hopefully, we

can show you how we attempted to adjust things, not only on a look and feel, but foundationally from the content standpoint and navigation standpoint. So this is the new homepage that you can see live today. One of the main things we did was to optimize the navigation and organization of content and pages for ease of use. Like I said before, there was new functionality to be included. There was new objectives by CATA, new content, or content that could have been rewritten and reorganized in smaller and different ways. So what we tried to do is create a logical, sort of buckets sections of information for all of those to reside that would allow the navigation to have longevity over time so that for future growth and development, future content could then be easily added under those areas. We also integrated - you can kind of barely see it on the top of the circle, but a utility navigation for power users who are frequent visitors to the site so that they can quickly do the most frequent things, such as planning a trip, buying a pass online, or finding rider alerts. You can also see - my circle also kind of goes through it on the top, but there's a search there that we also integrated in the top bar. So that whole top area serves to anchor the site from page to page. One of the challenges on the old site was that there was some visual inconsistency with the navigation and also, I believe, in the store area the navigation changed completely or was even

removed. I'm trying to recall how that happened, but there was some significant difference which caused alarm for users, I would believe, to be transacting online and feel like you're on a completely different Web site. So what we want to do is make it a cohesive system so that as you go through the site you get similar looks and similar feels throughout the site so that you feel like you haven't left, and that you have this professional, singular user experience.

Some other things that we did was to sort of make better use of the homepage. I keep coming back to the idea that there were more functionality and more content and what we wanted to do with the homepage was to really take advantage of that and design it and lay it out in such a way that we could provide as much useful information to our users right up front. So one of the ways that we did that was to integrate some of the enhanced features that Trapeze provided, which was a trip planning application and route scheduling look-up application. The trip planning was a great application - or is a great application - that allows you to enter in a starting point and then a destination, and then also are you departing or arriving, and at what time, and on what date. Then the system will automatically calculate for you what routes to take, what transfers to get off of, how far to walk to the next stop. It's a really great system. So we offered a way for people to get

right into it, right off the homepage, right up front. Route schedule look-up is also a way for people to easily identify route schedules through a drop-down menu and then be able to get information about that schedule. The schedule and look-up feature for this new application offers a little bit more detail and filtering on schedules because scheduling, bus scheduling, can be a bit unwieldy when you start getting into all the different times, and a table, and all the different stops, and directionality. So to be able to filter that down so that, you know, your data that's coming back is a little bit more readable was one of the objectives of that application. Also, in the content area, we kept the idea of having brighter alerts right there on the homepage. People who use CATA frequently are interested in being able to find out if their routes that they use every day is being affected and why and for how long. So having this information online and having it easily accessible and available right from the homepage was an important objective. And then we have call-outs to different areas of interest that hopefully blend homogenously with the interface design. We have information on, you know, how do I ride CATA, right up front. Paying for your trip online, so buying bus passes. And then opportunities for displaying what's going on at CATA and for the marketing communication staff to emphasize interesting areas of the site or interesting news about the

organization itself. So it has that flexibility to adapt, depending on the needs of the organization, while also serving the needs of the user at the same time.

Here's a glance at a sub-page mockup. And a couple there, as you can see, we tried to improve upon here. One, consistent sub-page navigation on the left-hand side, that convention of sub-page navigation is consistent and it's the same on all pages throughout the site. Customer service context below the sub-page navigation, so that it's readily available from any page, also resides throughout the site. And then content consolidated in a condensed and Web-readable way. I believe many of you may know that when faced with a wall of text on a site, usually your eyes will just glaze over and you hit the next or the back button. In Web design, a common convention is to really take the approach of scannable text so that you create content in such a way that users can easily scan it for key words that they're looking for to determine, you know, is this the page I want to be on, and then also using bulleted text to help emphasize and support the idea of scanning information rather than having to read it. That whole idea of scanning text really came to light in a major way on the second round of usability testing. I was fortunate enough to sit in the observation room during that test and it was the first time I'd ever sat in on a test to that extent. Some of the things that

we saw were just so amazing. One of the great things about the sampling was that there was a sampling of sighted users and a sampling of Web site users who had visual disabilities. So to be able to see how they use the site differently was so amazing to me, having never observed that in action before. The sighted users would typically just scan the page quickly, maybe picking out a word or two, and sometimes having difficulty in determining where to go, whereas those with the visual handicaps found it very easy to get to where they wanted to go because of the screen readers specifically going through and identifying the different pages, and they quickly got to where they wanted to go. I believe that was hopefully supported by the navigation, as well, but it was quite an interesting observation. So when creating Web site copy, that's always something that you want to consider is that people will typically not stop and wait to read your text. So to consolidate it and make it more usable, more consumable, I guess may be a better word, is a good thing to keep in mind.

Some of the enhanced features that were added to the site was a new shopping cart system that we configured so that it remained within the theme and look and feel of the site so that you didn't feel like you were going to another whole site after the fact. The ability for vendors of CATA to track bids online or see what new RP's are being posted by CATA to help

support that relationship. The ability to post jobs and to have users view those jobs and apply for them right online, if the job type is applicable. And then enhancing the rider alert functionality through allowing for publication of alerts, but also giving the users the ability to subscribe to these alerts through email or SMS messaging. So they can create an account on the Web site and provide their email and mobile phone number and the idea is that once you create an alert, or modify it, or close it, that the system will send out the appropriate messages to people that are subscribed so that, you know, even if you're not sitting at your desktop all the time, or with your laptop, you should be able to get information about your route from wherever you are if you have a smartphone with an email or SMS messaging available.

So, on to measuring the results, the post-evaluation. Like I said before, a really great thing about working on this project was that after we were pretty much ready and done, we submitted the site one more time to MSU Usability and Accessibility Center to do a second round usability test so that we could measure that data against what we had created and what we saw in the baseline analysis. So for the second usability test, again, 15 testers were recruited, sampled from CATA's target customer base. There was some demographic variance in the new testing group, but the same objectives and testing

protocols were used exactly the same as the original study. And the results indicated that there were measurable improvements, significant improvements, actually, in six of the eight task scenarios that were performed, and there was a variety of very positive feedback from users, including, you know, the site is easy to use, to navigate, and that it's helpful information. One user in particular said that after looking at the site that they got the impression that CATA really cares about getting information to riders, keeping their information current, and keeping riders informed of the services that they offer. So we felt that was a really good accomplishment. Some of the opportunities for improvement, like I said before, we measured significantly better on six of the eight tasks. So what about the other two? Well, the great thing about the report that MSU provided was they provided what was wrong and recommendations on how to fix it. A couple of those key areas included increasing the accessibility compliance of some of our tabular data, as well as one of the areas that we didn't score so well on was the ability for people to actually find customer service information. Luckily, after receiving that feedback, we were able to react in such a way that we then placed what you saw as the customer service call-out on every page so that information was always readily available no matter where you were. A part of the issues that were in that second study and one of the

reasons why, or one of, at least, the two issues that came back were, we believe, that there was significantly increased complexity introduced into the new system with a lot of the new modules. So with an apples to apples comparison from the baseline analysis and the new site, where, in the original site people were looking for route information via sort of a static display of text information, they also had options to veer off and use some of the more complex systems, such as the trip planner, to find that information. So introducing that level of complexity and not having any initial feedback into how people were going to reuse and react to it, like we did in the other areas of the site, I think prohibited us from being as successful there, but luckily we did have time to react and we revised some of that verbiage leading into those pages to help people understand what the tools were. Some of the challenges were that people didn't quite understand what a trip planner was. It's a new terminology for them. Or, you know, is route schedules really the information I'm getting back if I click on this page. So what we tried to do was establish action words and phrases, objectives that people might be looking to do, such as, are you looking to plan a trip, or are you looking to go from point A to point B, or things of that nature. And those then serve as sort of an ancillary navigation to get people

actually into the tools, rather than having to decipher the naming conventions used by the Trapeze folks.

Identifying areas lacking in accessibility code. I kind of alluded to that earlier, where the feedback allowed us to gain some insight on where we needed to fix up that code, and we were able to react to that before launching the site, which was a really great thing to have before, and a great result of actually doing the usability test.

So, looking forward, challenges for the future. The Web site, I believe, CATA, as an organization, has definitely embraced the idea that the Web site is an ongoing effort, it's a living thing, and they're committed to improving upon it and using it as a vehicle to communicate with their customers and serve the needs of their organization. So maintaining that and continuing to gain feedback and gather feedback from their users to help them understand how to modify, innovate, and change the Web site, will be critical. And then to simply just maintain that spirit of innovation that led them down this path to begin with. Like I said, it was a great project to be working on. I'm really pleased I had the opportunity. And that spirit of innovation really to enhance the quality of life in our community is something that I'm glad we could all be a part of.

So with that I'd just like to thank CATA again for the opportunity, LKF for the great support and contribution, and my team. It looks like we're at time.

Anybody have any questions? Yeah.

QUESTION FROM AUDIENCE: Not audible.

MR. BACHELDER: Yeah, we didn't actually do a card sorting exercise, but we did an inventory. We did an inventory of the existing content, and then consulted with CATA and LKF on what kind of new content and information they wanted to provide. So this gave us sort of a matrix, a big - an overview of all the different types of content that they wanted to have. So after understanding the bulk of those we just went through an exercise of creating logical areas of information that were broad enough, yet specific enough to allow for future development. Hopefully, we achieved that goal.

Yes, sir?

QUESTION FROM AUDIENCE: Not audible.

MR. BACHELDER: I agree. I think that is a big challenge for the Web design industry or innovators overall. I think the very definition of innovation, though, is really to create a need that people didn't think that they had before. I think Apple Computer and Steve Jobs is a great example of that; creating things that people didn't necessarily think that they needed, but all of a sudden they can't live without. So it's

really gaining the insight into user habits, understanding a bit of maybe uses and gratifications psychology and some of that theory on how people might actually be using the site, and then tempering that with some feedback, constant feedback from people, and your own organizational goals. I think that gives you sort of an advantage to steer things and provide points of innovation over time.

Oh, yeah.

QUESTION FROM AUDIENCE: Not audible.

MR. BACHELDER: Not yet, but I do know that CATA is actively thinking about different ways to service people in mobile devices and any different emerging technology. It's just a matter of time, but they've definitely expressed the philosophy and thinking that that type of innovation is definitely the road, the future for them. But for this specific project, no, we had not.

Yes?

QUESTION FROM AUDIENCE: No audible.

MR. BACHELDER: I agree, you know, and actually Twitter was one of those things that had occurred to me at some point during the development process for rider alerts that, you know, why not use Twitter, and it would have served as a great platform. I know that CATA is currently using, I believe, Facebook as a group. So they are working with social networking

platforms. But the challenge that you have is really the user adoption of such technologies. So right now we have to sort of limit ourselves to what people have definitely adopted, and email is one of those things, so we have to sort of limit ourselves in that way for now until innovations like Twitter do grab hold and more people are using them.