Please stand by for realtime captions. That is intimate, if you don't mind, these before. It is easier for the presenter. We would like your ears and we have the lights appear. -- up here.

I feel like I am about to be interrogated.

[ Laughter ]. We mightt -- >> For my me to tell you -- remind me to tell you [ Indiscernible -- low volume ] . At least we are not doing waterboarding. [ Laughter ] Good afternoon everyone.

Graduations for surviving -- congratulations for surviving to this point of the day. This is addressing the spectrum of mobile -- mobile planning. This session is called Mobile Initiatives at Maryland and Florida.

Please do evaluations for this session or any other session that you attended a Educause . The only way it we improve this experience year-to-year is three your input. Of greater honor to me is to introduce our two speakers this afternoon. The first is Christopher Higgins. He is the inner him director of learning technologies environment at the University of Maryland.

He is better the University Maryland for over 10 years. He is been working in the field of learning technologies for more than 15 years. He has worries -- research and workshops and cuter is -- computer-assisted learning for more general I support of take -- generalized support. He has enjoyed a brought experience from language labs to developing materials for online courses.

 Douglas Johnson is the assistant director for learning services at the University of Florida. He has 10 years of IT experience in successful management up personnel and project management including strategic and evaluation and budgeting and limitations and operation and maintenance and it goes on for quite a while. Upgrades. And in -- continuous improvement of heavily used mission improvement IT systems.

Is an experienced project manager multiplying -- to bring enterprise-level systems successfully into production. At this particular point, I will turn the kiosk over to be some of.

 That afternoon. Or good evening. Which ever you prefer to planning on where you are from. As we get started [ Indiscernible -- low volume ] . We realize it is late in the day. So we really encourage you to participate and engage. As we get started, we want to first talk about our path for the presentation.

First I will talk about the story of Maryland and its mobile initiative. The talk a little bit about the University of Florida. And we will all meet in the center. And talk about common issues. And hope we have some good discussions about where things are point. And I hope you don't mind me remaining seated. I am short and I don't want to say behind a podium. [ Laughter ] . So, Maryland started its mobility initiative shortly after the iPhone came out. That is when the first brainchild came out.

A month or two later. And when they were actually looking at what was going to be involved in what it meant to be having this initiative, we looked at what were motivators for this. There were a few things. One was the improvement. Relating to how we can attract the brightest students to come to Maryland.

That was part of it. We us to look at faculty innovation. We had a number of faculty doing interesting things creating applications and different things not for IOS devices because they were already out there. But for a bright he of -- for writing a different -- variety of devices. And they were using this for enhancing mobile devices. It was really the faculty in a mission. It was also to look at how we improve the interaction among students and faculty using these devices? To try to get the direction -- interaction and engagement among the two parties together. Mediated by mobile devices. As we evolve through the process, even looking after the first year, it is realizing that this is not going to be something that will wither away.

We need to look at the mobile enterprise. And how that affects us. So, just to give you a context on how we will do this as I was made to my presentation, I'm really considering this the mobile zodiac. And I will not talk about this in a linear fashion necessarily but really the topical fashion about this. Looking at the devices. And engagement. And applications. And content.

In the enterprise. As I mentioned, as we mentioned, we started four years ago with this. It is the first motivation to get going. It really wasn't this new device. This new innovation about what we can do with this. They have been around for while. And then some projects with PDAs. What we actually look at and make sure we can move forward with on the idea of these new devices that are touch screen.

They have some strong possibilities. Like I mentioned, we looked at recruitment. It was bringing the students into that. When we are looking at how to get these, we are in the fourth year of our initiative. The first year focused on individual student use. We gave devices to about 175 students as part of our honors program. [ Indiscernible -- low volume ] . The best and brightest of Maryland received these devices.

What we really is in the process was the fact that they were not all in the same class. So it was her to initiate how they were using them academically aside from the individual use for studying and personal things. Your number two, we really wanted to focus on how we want to engage faculty. And how to use these devices. So we actually look at how bringing this faculty into this and getting the devices into their hands in different ways. One ways was actually a loaner pool of devices that they could use further classes.

-- use for their classes. This past initiative year, it was looking beyond the IOS devices. And into the mobile web. And into other applications. Android. Mobile app development. We also continued a strong emphasis on faculty basement. We needed to gather them and get them engaged in the process to look at this. Right now, in the third year, for the fourth year, we are actually he and how we can engage faculty with content. And the type of that -- devices that have come out have changed the way we can think about things. We have lockouts before where we can actually look and read content.

This complicity of having an iPad in your not -- in your lap and read the content, that is change things in many ways. It provided flexibility. Is an access to the Web. Instant access to media. When we are looking at those devices, these are helping us change and how they can be in gauge. So, -- engaged. So, if we think about this, it is really how we engage. From our perspective at Maryland, we focus a lot on teaching and learning.

We focus on engaging the faculty to engage our students. It may be bypassed through the normal, let's get our students. We wanted to make sure the faculty were prepared to do this. In doing this, we actually created this program for the faculty Fellows. They were part of the Summer Institute sponsored by the teaching for excellent center. These faculty Fellows came up with projects that they wanted to. They went to the summer technology Institute working on these projects that they would use in the fall.

We created this loaner pool of devices so they can borrow these places -- devices work with the students. We had 70 iPod touches. This is your number two. They were second generation iPod touches. There was no camera. No easy voice recording. We were able to get the faculty to do this. As we look at this, we have actually been able to expand beyond the minimal pieces of the device. At a Friday of classes participate in this. And part of that was -- [ Indiscernible -- low volume ] . A lot of it was focused on data collection.

And, so, we had a kinesiology class that was actually set up to do future observations. -- you went through and had their students go through and observe the master teachers and collect data and bring that to connect wireless in the data was sent to the faculty member. In a communication class, they ask you click the media journals. Where students over a two-week period at Maryland and a few other universities around the world, they collected data about their media usage on the device.

They were able to collect that data and send it to the faculty member. One of the things that we realized is a lot of these were individual pieces of information that were collected.

We also had, what we did, we wanted something that was more permit and we didn't have to create an app every time they needed it. We had a faculty member and architecture, Arrest Planning, doing a walking tour of College Park. They walked around neighborhoods of College Park and noted where there were cracks in the ground . Lots of let her. That kind of thing.

They did an assessment of that. That went into a database. Coupled with GPS data and exported to be able to put into Google maps. You can do that any connection go into the map of College Park and find the data that they had their -- there.

Another class was a mobile journalism class. It was extensive in the way that it worked. And mobile journalism and information three data -- 3.0. They use every have a technologies you can think of. One of the culminating expenses was Jewish together data and interviews with their faculty and our visitors on Maryland day. It is an open house. Eating 70 to 80,000 people coming to campus.

What they did was they went around campus during Maryland They and gathered interviews. And we did and got log entries. Throughout the day. Probably about 1000 entries of those for the 30 students in the class.

It was a way for them to experience what it is to be a mobile journalist. So, apps. Everyone knows apps. How many campuses have created an app? Most campuses. So, when you are looking at apps development, for us, it was a motivation initially that when we started with the initiative, we need to have something ready for students.

There were a few things we worked out. We created a mobile portal for our students. And they had access to certain information, including a few aspects into our LMS. As we moved on, in the second year, we wanted to support this [ Indiscernible -- low volume ]. We created a number of apps. The data collection apps for these courses . We also had a new app created called UM info. The standard information about campus. Maps and scheduling and things like that. We created a Friday of those. -- a bright he of those. -- a variety of those. [ Indiscernible -- low volume ]. The students don't have the restrictions . They think broadly and how they are doing this.

A lot of those apps, they did a tour of the campus. They did a beat maker. You could synthesize different music and create your in use it -- music. They did a variety things that were unique. These projects in this I from programming course. Last year, we expanded the concept of our own mobile presence UMD which is really mobile -- which is UMD mobile to action pilot their version -- to actually pilot their version of a mobile app .

As well as the mobile web version. You can get it to any device. It didn't matter. The biggest inundation was the programming concept. The program contest focused on getting the students to create apps about Maryland. There was a huge variety of activity. We initially had 100 students involved in the program. I have to say. Attrition. It was a long project. At the end, there were probably 30 that stayed involved.

We had some interesting apps come out of it. And the winner was called Jam My Jam. It is a social using app. If you're walking by, and they're playing a song, you can listen in to what they are listening to Turkey you can actually share their music. Another one, the second-place called App Mo, a way for individuals to vote on music. There are a variety things. That is actually used in DC clubs.

DJs actually use that for the dancers to find out what music they want to listen to. Content. I think this is one that is really kind of a new area for us. I think you probably saw a couple of weeks ago, Indiana University announced a partnership with their bookstore and they variety of e-textbooks companies to promote the use of e-textbooks and e-content whether classes.

This is one of the entities we have. How can we get the faculty to use this open content to deliver and develop their own ways of communicating and engaging their students in their areas. So, really, at this point, the question is where do we go from here? So, we've been doing this for four years. As you probably saw, a study came out, pretty much most students, as you know, most didn't have a cell phone. -- you have -- the study that was launched this morning said about 75% of students have a smart device.

So it has web access. And data access. Beyond the concept of initiative. We are into the concept of mobile ubiquity. Everyone has this. As we move forward, we have to look the on the idea of an application or be on the idea of a device. How do we use with the students have in their hands to actually engage them and move forward in a teaching and learning format?

And that academic environment. How do we help our faculty understand how they can do that? I think it is working with the faculty for where we will action make the biggest right. -- biggest stride. For us, that is our challenge. We said this before but we talked about the mobility an issue for couple of years now. I can't see myself talking about it in another year.

If I am, that mobile ubiquity either didn't happen or didn't materialize. Or we are behind the times. I truly believe as we move forward, everyone having the device, it will change not just our academic and private but even how we deliver content here in our presentations. >> I'm not sure what that noise is.

[ Static ].

 [ Laughter ]. It didn't do it when you were talking.

It like you. It is the audio.

Hello, I am fed Johnson for the University of Florida. Thank you for coming this afternoon. I think it is become pretty much obvious to everyone that the plug for Asian of mobile devices has reached a point where it is defining the future that we face. Defining the future of computing. They will be continuing roles for desktop computers for high-performance computing.

But the reality is that the world is becoming increasingly mobile. And mobile demand will only increase and increasingly dominate what it is that we do. Hence the importance of this conversation that we are trying to start this evening. [ Indiscernible -- low volume ] . That will work. At the University of Florida, the initiation of mobile activity and entering into the mobile world was very different from what was experienced at Maryland. So back in our case, it was [ Indiscernible -- low volume ] .

They were an iPhone user. In the iPhone app develop and in the student realize that the University of Florida. So he built a mobile application. And started developing the procedures and to deny shop. -- a nice job. And those at the University stumbled upon the student. So we had to work to try to bring this guy, Brian [ Indiscernible -- low volume ] , into the fold of institutional development. And institutional priorities.

So, as we dealt with Brian, one of the things we had to deal with, what were his motivations and his motivators? And chief among these is that he was not at all interested in making money off of this. This app he was developing. This was a student with revoltingly good priorities. I try to buy his app from him because he didn't want to sell because he was trying to control development. He did want to take a job because he thought it would potentially interfere with his role as a student.

He didn't want to compromise his academics. I tried everything I could, everything I could think to manipulate to get him. And failed. [ Laughter ]. In every possible way. It put me in a mode where I had to collaborate with them. There are some real intriguing aspect of this that we will talk about in just a minute. One of the biggest things that Brian needed that I had was access to information sources at the University of Florida. Our goal became one of myself in this member of my staff called David Kay, he is moved onto bigger better things, we would meet with various information providers around campus.

And broker introductions and enable right to continue to work on the iPhone app that he was working on. This generated, the fact that we working on this and working with this kit, it generated all sorts of anxiety around campus at very is levels. For simple, within the office of information technology and I part of that office, there was a great concern for issues like how do we maintain this? What if this kid works on it and someone gets boarding gets -- and decides to quit?

How do we sustain this over time? How do we bring institutional initiatives into this development? This was a student who was developing this app in the perspective and framework of student interest. And that is not a mode of thinking that the University was necessarily familiar with. Did I say that diplomatically enough ?

Anyway, there were real concerns and legitimate concerns within the context of IT about the development of this app by the student. Then there was a purchasing department. Dealing with a purchasing department was really fascinating because the student was offering to give this app that he developed to the University of Florida. All he really wanted out of this was official recognition. He wanted to be will to say this was the official iPhone app of the University of Florida.

The kid was a freshman when he started. That would be really cool. And antigen that. But the purchasing department was really hung up on what does "free" mean and what are the indications of free for our jobs? If we start doing more free stuff? On us to God, I ended up on the phone for 2 1/2 errors -- two and half hours with a purchasing department the yes we were trained to move this app over eight -- an official thing and it was not costing us anything.

Then there was the general counsel office. The general counsel's office was particularly intrigued, for fight is the word, because the first question out of our mouth, out of general counsel's mouth was this is going to be an enterprise service for presenting the University of Florida but we had to send it out for a bit. -- bid. Have you send it out for a big that is -- bid that is already being provided for free. They grappled with it.

It was kind of funny. It was quite amusing watching these different groups. And marketing and institutional relations was particularly fun. They are in charge of protecting the University brand. This kit is calling this UF mobile. You can't use that. He's using our colors. We own origin blue and he can't use or template. -- orange and blue. There were other concerns. Of my got. -- Oh my god.

They went to the iTunes store and realize the 16,000 people have downloaded this iPhone app. If we jerk the road -- the rug out from underneath the 60,000 people, this is going to be a PR nightmare. All of these additional crisis is. -- crisises. Everyone else, positive feedback. This is cool. This was neat. I wish it had been available when I was a freshman.

Public feedback on this particular app was outstanding. That of course only exacerbated the crisis for the institution. So, the institution response in the way the University of Florida response. It started in analysis. Version for most. What is this whole mobile thing to begin with? The reality for the University of Florida, mobile wasn't really on the radar. There were lots of pockets within the campus that were paying attention to mobile.

That the institution was not. And, ultimately, one of the convicted things that got the University involved was going to be Gartner research and I went to greet -- read a brief would that has -- a brief quote that is effective what we've done at the University of Florida. And may have implications for your school as well. [ Indiscernible -- low volume ] .

I just realized how dirty my classes are with this light shining -- my glasses are with this light shining in my face. [ Indiscernible -- low volume ]. Providing an ideal environment for the convergence and mobility on the web. Mobile devices are becoming computers in their own right with an astounding amount of processing [ Indiscernible -- low volume ] . Apology at the expense of education in these devices which can apply to location, motion and other context and behavior is leaving customers to interact with companies preferentially through mobile devices.

This has led to a race to push up applications as a competitive tool to improve relationships and gain vantage over competitors whose interfaces are purely desktop browser-based. This is from a Gartner report. I have a citation here. If you download the slides, you can get the citation. But this idea of competition. And moving into the mobile round in an effective way and being a key component of competition, this allowed attention at the University.

We do football and ask about a baseball and we compete. Academics, we do that fairly well. But we compete on the field. Alternately, the University of Florida was realizing we needed to catch up and we were behind. So we launched the mobile project. One of the interesting things here, when you think about what Chris is talking about with the initiative at Maryland, suddenly we see a different set of drivers at the University of Florida. Here is Maryland. Date immediately started thinking about how we can gauge their be -- students. And faculty. And learning and teaching.

At the University of Florida, we have a student who is saying, what can I built to make my like more convenient as a student? And then we have Administration saying oh my god, all of my peers are doing this, we need to do this too. We have administrative and student drivers. None of which, I think, are ultimately engaging the real possibilities of mobile devices.

We will talk more about that as we move up. But I just have to say, and this or context, I have learned a lot from Brian. Excuse me, from Chris. I am switching slides and that threw me off. One of the other things, not really a tragic thing but a problematic thing. Brian was left high and dry in this process. Once the University begin to engage this process that we need to do mobile, the work and effort that Brian have put forth were shipped over to the side. Don't worry about right. He will be fine.

So how do we function as an institution? The person you is to create a committee. This is July 2010. University of Florida creates the UF task force and makes no decisions without involving it can be. Vector is probably a policy to that effect. December 2010, they present their recommendation which broke down to this is probably more do we should probably do it.

So there are a number of other components to the recommendation. One is to build locally. That we talked to a number of vendors. For the higher education institutions. We talked to better suited applications development for commercial entities that were interested in breaking into this. Ultimately, we decided that we wanted to build multiple -- the key driver is that we want the mobile presence. The University of Florida needed to be found on the web as a developer up devices in the mobile presence.

And, generally, as a rule, the committee overlooked the real implications [ Indiscernible -- low volume ]. Another thing in making the decision that we were born to develop locally, the recognition that the University of Florida has unusual statistics when it comes to mobile devices. We have seen all of these reports and stats to come out of other universities. At the University of Florida, for sample, Apple devices are common but they are not the majority.

[ Indiscernible -- low volume ] . And/or devices about 16%. Blackberry about 40% which is amazingly -- 14% which was high. Palm devices had a small presence at 3%. Other devices as 70%. -- 17%. The indications are simple. We are too many different device profiles that have a significant presence. And that means that what we needed to look at by merrily with web apps. Push them out to a variety of devices other than focusing on a device specific app development. If you want to talk about the two technologies of our mobile at development in mobile device development, I can give you details about that. Here is another decision point based by the University of Florida and our mobile project. Do we go with device apps or web apps or web apps with device wrappers?

Do we do both or all of the above? Of course, the circumstances of your particular institutions are going to drive those decisions. This is not a one size decisions that's all -- fits all. As you think about your own local [ Indiscernible -- low volume ]. To be too big about these and how to best fit your institution. Another decision point is to run your mobile development program or your institutional mobile project is a centralized or decentralized project. At the University of Florida, of course it was centralized.

When it comes to something as easy as web app -- web app development, a centralized process brings to mind the usual metaphor about herding chickens. How do you bring disparate elements and needs and of writing if constituents and stakeholders around campuses into a single development focus. There have been some real challenges along that line. At the same time, it is important to recognize that there are institutional issues and concerns that need to be recognized in the context of active element. You get into issues of institution reputation. And issues if you start engaging the services that provide access to critical data. Registration processes. Admission processes .

Payment of fees. Access to online courses. All of these have implement -- institutional implications need to be considered. At a higher level than this is just going to cool if I write the code. And then of course you also have serious needs for [ Indiscernible -- low volume ] to be informed . About decision-making within the context of mobile development. At the University of Florida, we have got very strongly with the centralized development route. Interestingly enough, we are starting to run into problems with that. And limitations with that. And I will say more about that in a few minutes.

So, August 2011, we launched the US mobile project. [ Indiscernible -- low volume ] . It becomes a key starting point. And the appropriate JavaScript. In an angler's. And it hits the University of Florida webpage. And then is sent automatically directed to mobile enables webpages. So students and faculty and staff and alumni can see these pages. And work with very speakers on a mobile device.

So that brings us up to the present. September 2011. I'm now back to engage in -- engaging bring. Because what we have come to realize is essential development group, there are these limitations to meeting all the needs of constituents. Was started engaging collies -- colleges and faculty and students. In the context of this mobile process after but they need. Which we do next with a centralized double development process? The result has been feedback from all of these different constituencies that have given us more functionality than we can possibly develop in our existing my times. There are so many capabilities of this mobile device and people are recognizing this capabilities. They are demanding these capabilities.

They are champing at the bit to make use of these capabilities. You become to realize a centralized IT at the University, we are not going to be able to meet that level of me -- of demand and need with a purely centralized process. We are starting to think, how do we move to a more centralized and decentralized framework at the University of Florida?

I have to say, in conversation with Chris, as we were preparing this presentation, I've gotten a huge realm of ideas from this that has approached mobile app development. In a different way than how we did at the University of Florida. This is an immensely valuable. Is putting this presentation together.

Again, if you want to see the mobile process at the University of Florida [ Indiscernible -- low volume ] . Feel free to take a look and poke around. I'm going to shut up for couple of minutes and let Chris take the next stage. Action, I'm not going to shut up. [ Laughter ]. I like. I will take full of vintage. -- advantage. I want to talk about [ Indiscernible -- low volume ] .

Predicting the future of mobile. Where are we headed? I think Chris hits the nail on the head when he uses the term mobile. Or of these mobile devices are being developed. You have a variety of those coming out and a variety of capabilities. We have laptops and tablets. And tablets spanning devices that are not much bigger than a cell phone and those not much smaller than a laptop.

There is a huge diversity and range in size and weight functionality and capability in these mobile devices. I think it is fairly clear that mobile devices are and will continue to be increasingly pervasive in our institutions. Here is an interesting chunk of data that came from a recent survey of our most recent class of incoming freshmen students. 92% of her freshman class came to the University of Florida with a computer of some sort. 75% of the students identified the device that they were bringing us including mobile devices. Cell phones. Smartphones etc.

Of the 25% of students that were left, they indicated they were bringing desktop computers. The average age of the desktop computer is four years old. Those are old computers. And that leads to a fairly comfortable hypothesis that much of that 25% that is bringing the desktop computer in with them, they are bringing the computer long enough to find it what their needs are going to be at the University of Florida and then they're going to buy new devices. It is highly likely in the current marketing and its environment, most of them are going to be mobile in some form or another. We have a lot of mobile happening at the University of Florida and we have to respond to that.

At this point in time, take a moment, get your phone out and turn to your neighbor and get their phone number and text them a message raising -- forget it. What we want to do is kind of raise, I have been describing this. This speaker thing on my name badge. What are you presenting on? I have been telling people that what we want to talk about is the issues. That lie behind and above the question of should be or should we not develop the mobile initiative at her own campus?

[ Indiscernible -- low volume ]. I will hand the specter Chris now honestly so he can quickly review these issues with you.

For us, when we were going to this idea, this presentation, like I said, I am in giving presentations on this for over a year. And have some comments like that a normal use. And Doug challenged me to think of this in a different way. And put pictures instead of words on flights. As we did this, we came up with common ideas in this. What are the drivers? How many of you have mobile initiatives on your campus? Or some sort of mobile effort?

What really was the driver? But -- what motivated your campus to go in this direction? For us, there were clearly different elevators starting a process. And, when we look at those, we focused at Maryland, a lot of what I saw for mobile activity. Engagement. How do you use it for teaching and learning and how to use teaching devices? Right now I have purchased in iPad for all of my staff so they can actually see how it can be used in the industry to -- administrative and not just academic purposes. General purposes.

Said that activity piece. As opposed to the concept of creating a mobile presence. Having the mobile app. Was cool that we worked with recently, their athletic app, their campus at. -- app. If you look them up, they had 10 app specifically for that University. Which is all about that mobile presence. Making themselves available there. I think when we are looking at this, it is a concept of what process are you going through with development? Out of the whole spectrum, we continue to do that. We do not have a true centralized model. I think we have a decentralized model which has its own copy a. And it would be good to have a good centralized motivation to do certain things. I think learning from Doug and coming to that senses. The middle point of being able to do both and also looking at , I'm sorry, looking at mobile ubiquity.

I can't see. The screen is too small. This concept of where we go and what is the future for this on campus. It is another tool. How do we do that? But want to do is see where you are. What are you thinking about. What are the drivers on your campus? Are you focus on activity? The mobile presence? Is or something we missed? What do you think?

I want to see a hand. Or someone can stand up. It is really bright in here.

 [ Indiscernible -- low volume ] . >> [ Captioner is not receiving audio at this time and is standing by. Thank you. ] >> The apps that are beyond our own capacity. The on our own development. The purchased apps. The free apps. Those integrated with text. And programs. Integrity. Things like that. A lot more that is happening. I think that is really a cool concept. I really do want my own true to do that would extract from my brain. I'm thinking, I have to do this next. I think her students would love it.

 [ Indiscernible -- low volume ] .

[ Laughter ]. Any other thoughts on your projects? I know, for us, when we look at the concept of activity versus presence, we have focused a lot on how we actually engage our students and our faculty. And initially, in her first year, what is interesting is that the faculty who are engaged in the steering committee the first year, they have their own projects. They were doing some amazing things. But they were focused on their own research projects.

It wasn't about teaching and learning. It was about their project. And the way we engaged our students with getting the best and brightest. It was about recruitment and not necessarily about understanding how the students are going to use these devices in an academic department -- environment except academically.

It took us a year or more to understand how we can actually do a better job. And last year, in her third year of the initiative, our digital cultures and creativity program started. A few months after the iPad came out, we had 55 students who had iPad in hand in this program. It is a living learning community. Some amazing things. With engaging the students in a creative process in computing and how they can express it in an individual manner.

The first year, they were just getting the program started. This past year, that I should been every week. They have a project. That requires them to use their iPad. In ways that I don't think we would ever have expected. The first day. They get in and they get their iPad. Remember the old activity we put a name, someone's name on your back or on your forehead in the had to figure out who that person was that you had on your back and find a person in that kind of thing? They did the same thing. And they give them a T-shirt with a QR code. It was fantastic. Watching them engage each other. Taking their iPod -- taking their it -- taking their iPad. Taking shots.

It was a great activity. Is an integral device in your learning experience. Yes? [ Indiscernible -- low volume ] . He chose to develop locally. Did you consider -- do you mean locally as in opposition to a same vendor? Or do you mean -- did you consider the other mobile web frameworks that have been developed around the country like MIT and now California is doing some stuff. What does local mean?

That is a good question. By local, I mean we have created at the University of Florida a mobile team that is doing the mobile development. Physically at the University of Florida. We are using the mobile IT framework. As well as other tools. In the process of building the apps at the University. By local, I am talking about we decided -- we decided not to hire new people but to be allocate existing staff that had development skills. And this project. Go ahead. Let's pick up your question. We will bring the microphone to you.

I just want to comment, we have done so mobile stuff last summer on the mobile website. And we had some focus groups on what was important to students. We had that raised. With their sport schedules. After that, beyond that, I think the biggest challenge was how do we expose all of the content from the systems. In real-time. With mobile devices?

Because if we could do that, if you do it easily, you can have a lot of mobile apps out there. This summer we brought a -- body product from our vendor that could do that. And [ Indiscernible -- heavy accent ] . And decision-making. And all of the [ Indiscernible -- heavy accent ]. And those Web services can be used from any platform they can use to start your data. So we have that in place. That is powerful. [ Indiscernible -- heavy accent ]. And there are mobile apps on top of that.

That is actually the path that we have gone down. Web services. To engage the mobile content and a mobile manner. Cool.

The University of Florida, that was also a big issue for us. And one of the biggest initiatives that we invested a lot of time in the process. On integrating [ Indiscernible -- low volume ] . Which has become the enterprise authentication system and University of Florida. Into the devices so they can authenticate and get access to that critical data. But as we start talking about engaging the data, part of what I want, what I would like to come for me, the key take away and all of this goes back to the concept the Chris is talked about with this idea of mobile ubiquity. We have students who are showing up on our campuses with devices that they are familiar with. There comparable with.

And that opens up critical question. How can we engage our students as students with these Fridays of mobile -- fridays -- varieties of mobile devices. When we did a survey of students at the University of Florida asking them what kind of activities they would like to be in gauged in, using the mobile device, the number one thing is they wanted more bus schedules. They wanted the bus schedule.

The first thing that came to mind was an issue of convenience. And many of the what items that they listed were focused on the issue of convenience. The number two item was access to the course management system. They wanted to get at their breeding and other learning activities. I think students are recognizing the value of mobile access to content. In a way that institutions often haven't yet begun to recognize. And I think that is probably the single most important thing that I have learned from Chris in the work that they have a doing and Maryland. To try to think about and change the thinking at the University. We are thinking about -- good at thinking about administrative applications. They are valuable.

There is a whole new frontier about how we engaging a student. How they engage in teaching is in those devices. How students engaging learning using these mobile devices. I think that is really the valuable wild West that we should all be living in and heading toward.

I think of a more question. So, this actually relates right to that. We are starting to think about what kind of mobile applications [ Indiscernible -- low volume ] that we want to look at. What I have been thinking about is if you essentially want to build around things that the mobile device [ Indiscernible -- low volume ]. For example, things that people would do [ Indiscernible -- low volume ] .

 Like scheduling. And it seems like that would be something that if they didn't have, they have to go and find a computer. [ Indiscernible -- low volume ]. The way we are think about it, that is really the direction. Finding out what tools are specifically leveraged by the mobile device. And the content that you are talking about, as mobile browsers get better. You will be able to get better. I know it is tiny and all that. That might work out. I wanted to know what you may think of it. Or did you have a different experience.

I know, for us, the discussion of being able to track that so much the use of computers in labs but for students to actually track the use of the washer and dryer in the dorm. And things like that. Those were things that came up. They were not things that came up that were high on our priority list. But we focused a lot if students wanted to create that, they could have done a project in the mobility Project contest. In a variety of ways.

It is not something we focused on developing. Our development has focused a lot on University can't it. It is also focused on one of the persons we created was are mobile portal. Which gives you Texas to the course management system. And what we call Elms. Which is Blackboard on our campus. We created a elms mobile app. That is when the person who created. And using the response where devices. It was all about teaching and learning. And a little bit about the presence. I do not how you approach that?

At the University of Florida, we had a recent transition to [ Indiscernible -- low volume ] . One of the things that comes with Secai, you can tell how long ago it was built, there is a trigger called slash PDA which is you an idea of when it was developed. A species apart -- partial mobile functionality and we enable that early on. Because we knew that that was going to be an important character stick student access. But I think, again, I want to circle back to the real issue which can stealing was, for me, anyway, thinking that the issue which is grappling with the applications of these. And then we start talking about teaching and learning. And engaging students with learning activities. And engaged in social learning in a Friday a different ways -- and a variety of waste. But there is also the flipside that we need to wrestle

 with.

Any of the schools up here that a begin to engage in this distance education a working very hard to customize a testing. At a distance and how we deal with secure testing and what are the indications of things like [ Indiscernible -- low volume ]. The lock down browser they can do a lot of things. But you still cannot observe the student in a particular device. There are all kinds of different tools that are available for trade and monitor the student. But think about the complexities that are going to come out of giving the students potentially the ability to take quizzes and tests on mobile devices where they will be sitting in a tree that only knows where. And taking the quiz. There are some real coordination is. For me, I think those are the issues of content in teaching and learning assessment that we need to be grappling with for this next-generation for what happens with mobile devices and institutional gauged the.

[ Indiscernible -- multiple speakers ] .

We a technically exceeded our time go ahead.

I come from [ Indiscernible -- heavy accent ] . And we give iPods to our students. And what we see is that they are already engaged with the device. There is no problem with the content. They are very happy. With any content. But a problem is engaging teachers. Particularly the older ones. We have some experience with the teachers where we are using Little -- Moodle right after that. And it is wonderful for everybody. But the transition is what we are fighting for.

And I completely understand that. Because after our first year of using this initiative, that is exactly the question we have. Our faculty, they have worked on this. And they're having a conversation recently where was basically, well, I think we are confident the concept of mobile ubiquity. And I said, yes for our students in Opera faculty. But they need to action concept to be able to engage the students meaningful way in an academic experience. And I would be happy to talk to off-line a little bit because I know we are beyond the type and appreciative or Wednesday night. Thank you very much everybody.

Yes, thank you very much.

[ Event concluded ]