

Christopher Higgins, University of Maryland

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*This is a transcript of an interview with Christopher Higgins. Video is available in SOL *R.*

Q. Could you introduce yourself and talk a little about what the initiative is. What problem were you facing that needed to be solved, and how did it all get started?

I am Chris Higgins. I am the interim director for the group that is now called Learning Technologies and Environments, formerly Academic Support, which is in our Office of Information Technology at the University of Maryland. The history of the Mobility Initiative basically started about four years ago. We're going to be entering our fourth active year this fall. The planning would have started about four years ago. It was actually not to solving the problem, but rather an opportunity. And so there had been a desire to kind of engage some of the best and brightest students who come to the university, and it really started as a recruiting initiative. So the idea being okay, let's give the best and brightest students who come to the university these devices. And while other universities in years past had used different PDAs to do these things, Wake Forest University had a huge PDA initiative with their students, it wasn't deemed that those were appropriate for us at that time, and when the iPod Touch came out and the iPhone came out, it was okay, we have devices now that are wireless built in, they have a common interface, a simple interface. These would be something that we can use. So I think those were some of the impetuses to begin the initiative. But when looking at the initiative, that came specifically from the exploration of our admissions group. And so it really started when our CIO got involved, we really started looking at okay, what are the other pieces to this? And really, how do we look at this as a teaching and learning tool, as an academic tool, not just a student's personal tool? And I think that's really where we started getting involved. There were a number of faculty on campus doing a variety of things. Some building their own apps for different devices, not necessarily for iOS devices. But some doing different projects in student activity and that kind of a thing. The concept of mobile learning was really kind of new as we were starting this. And so for us, it was really looking at what can we do? And in our first year, we made a lot of stumbles. So the focus was on a lot of these faculty projects, and it didn't focus so much on the learning. And what we realized is, I was involved mainly because clickers were a big piece of that first year. And so it was the one true learning piece that we could say yes, we can get all the students involved. And my background is in learning technologies. So that's where I kept pushing on this piece of it. And rather than focus on the app development that our faculty were looking at, what the students received in that first year was either an iPhone or an iPod Touch. They got a variety of apps that one faculty member had developed, called MyeVyu. They're a series of apps. They provided a variety of accesses to bus schedules and campus maps, things like that. And then we created a mobile version of our portal, so students could access the portal piece. And what we did was to make it again, allow for students to actually have an academic connection to that, we actually created a connection into our LMS, which we call ELMS, which is powered by Blackboard. And so we actually built certain web services for students to be able to read documents, discussion boards, see their grades, and get announcements. We used Turning Technologies on our campus. And so Turning Point is our clicker system that we use, and so they had just come out with Responseware Web, and we partnered with them to actually offer Responseware Web and the license for it to our mobility students. And so those were the pieces that actually fit more of the learning side. What we discovered pretty much after the first year is that, well, students did use the clickers, and they

appreciated having the clicker and not having to buy a separate clicker. Because they weren't directly engaged in the learning process with their devices, they didn't really use them as much for that. They were really their personal devices. And we realized this really kind of halfway through the year. It's just, you know, it was clear that something was wrong, and that we weren't focused on how to engage the students. The set of students that we offered the devices to were not in a cohort of any sort. So there was no way to actually say okay, we have a whole bunch of students in one class. Let's see what we can do with them. And so what we wanted to do is see how we could be better at engaging students in a learning experience with the mobile devices. So what we did was, we have our Center for Teaching Excellence, which we partner with, has a summer institute, summer technology institute. So we invited a number of faculty, and we provided money for those faculty to attend the summer technology institute to focus on mobile learning. And so in that first year there were six of those faculty funded. And we worked with those, and those became our mobile learning fellows. And so those faculty are people who were interested in how the mobile devices could be used, what they could do with them and actually wanted to engage students with them. One of the things that we discovered as they were working on their projects and what they wanted to do was that they wanted to- to be able to engage their students, this was three, four years ago, they needed devices in the hands of their students. So what we did was, most students didn't come with these devices. We didn't have the multitude of devices. It was only the iOS devices at the time. And really what we needed to do was actually get devices into the hands of those students for this kind of cohort experience. To do that what we did is we bought a set of about 60 to 70 iPod Touches to use as a mobile learning loaner pool. So we had those faculty fellows, and they put in requests to borrow these devices for their classes. And so we were able to actually engage those faculty in a process of thinking about how to use mobile devices for teaching and learning by actually having devices that they could use with their students. So we could provide a set of common apps. We could provide a set of common experiences, and do it that way.

Q. One of the issues we see cropping up a lot is the idea of faculty buy-in, and how to persuade people to get on board. It sounds like that's taking care of itself because you have everything in place.

Well, for us, I mean what we did was really kind of tried to- it was primarily, it was voluntary. So we had a variety of faculty who submitted proposals, other than those who were part of the summer technology institute. And so these faculty actually had ideas of how they wanted to use the devices. Some were better than others. One of the things that we discovered, especially with those who were in the summer technology institute, was the fact that they were focused frequently on basically data gathering, data collection, especially in the field. So one project, for instance, was in communications. One of the faculty members was working with four other universities in three other countries, I think, from the Middle East to South Africa. And it was focused on the idea of how do students use media? And so it was a media journal that the students were keeping. So every time they used, looked at a newspaper, a magazine, listened to radio, watched the news, did anything, they jotted it down using the device, using an app that we created for that. And this was a one-off app. It wasn't something that was easy to replicate for a variety of purposes. But what it did was it gave them the data that they needed. Now this was just done for our students, so this was over a two-week period. So the other campuses used their own devices, or methods of collecting the data. And so I think that was just one piece of it. What was interesting about the feedback from the students there was the fact that some of the students found it easy. It was like, "Okay, I have this device, I can just boom, check it off, do it. Yeah, it was great." Others were like, "You know, I'd just really rather have a spreadsheet. It was a little too cumbersome to do this," or some just wanted a notebook. You know. It was the

whole spectrum. But what was interesting about it was the way they were able to actually analyze the data. They were able to take that, easily put it into a context in which to analyze and compare it to the other data collected from the other universities, and overall they found that a lot was the same. It didn't matter that you were in South Africa, North Africa, the Middle East. It was pretty much students dealt with media very similarly. So I thought that was kind of fascinating, all of these different cultures and technological experiences, and yet all the students are pretty much the same. Another one of the faculty actually used it as a way for his students to observe master teachers. So they would be in their education courses. They would go out to visit sites, so different high schools. And they would watch the teachers. These were actually physical education classes, and so it's not like you're in a classroom, necessarily. They may be, but frequently they're in a gym. And so there wasn't necessarily wireless. So we had to create an application that would allow them to collect the data and not need to be connected to the internet right away. And so in this first year of engagement with the faculty, we did a lot of specialized app development, which was not the best thing in the world. But it was a way for us to help the faculty use the devices and see them realize what they were looking for. It also gave us an idea of what we needed to do in the next year. I'll get to that in a sec. But it was- so he actually had the students observe them. He had a clear rubric that the students had to follow. And so compared to his previous classes, he was actually able to see the data and how the students experienced the observation of the class better than he had in the past. And the students actually appreciated it. Their feedback was very positive with this, because it seemed a much clearer process than they had experienced in previous terms. So I mean, a lot of those initial class experiences were this data collection. Some were actually within the class. There was an English class that focused on women's literature. And they actually did a lot of reading off of the device as well as creative writing and blogging using the device. And so it was an interesting experience. The feedback got received that was, the students were confused why they needed the device to do it. Because it really wasn't necessary for what they were doing. But it was a way for the instructor to kind of get a feel for how this could be done, and so for us it was a learning experience, for all of us, how that was going to be done. So in this process of trying to engage our faculty, again, we focused on initially this set of six to eight faculty who were part of this summer technology institute. And then there was about another set of eight faculty who participated in the use of the mobile devices. One of this experience (which was) was actually integral to the initial launch of the initiative was a programming course that was set up because of the initiative. It was designed for graduate students to focus on programming for iOS devices. And so a chunk of our devices actually went to them. So there were ten devices that went to them. So it reduced the number of devices we had for the other projects. But one of the faculty members said, well, we were just programming. But what was interesting about it to me was the fact that even though they were programming, this teacher, as opposed to the others who were trying to create projects to use the mobile devices, his were integral to it. So in this process they actually had to use the devices on a regular basis. They had to understand how to use the devices. They were expecting the students to pull them out in class. They were expecting the students to work with them outside of class. So it was a really engaged way that the students had to use the devices. In that same year, that second semester, Dr. Ron Yaros, one of our journalism professors, actually did something similar. Now, he had the devices for a short period of time, but he created a course called Information 3.0. And the whole concept is, it's a journalism class focused on how is information coming to the masses? And so it wasn't just about the technology of the mobile device, but the technology of, you know, how do you use technology in the teaching and learning environment? And so things that are normally web interfaces, like Skype, we use Wimba with Blackboard. And so he would actually have a Wimba session going on during his class. So if a student couldn't come, they would come in via Wimba. They would use the backchannel, the chat as a backchannel. He would use Twitter. He would

use blogs. And what was fascinating about it, what he did with the mobile devices was, we have a campus open house every spring, called Maryland Day. And so what he did is using tools called Audioboo and Qik, he actually had his students go out and interview visitors to campus during this. And so it was truly engaged as a journalist in using the devices. Then these pieces were uploaded into these public websites. So in that first year, we had a great breadth of uses. So we actually had some developed apps for campus as well as some more public use of apps.

Ron's kind of amazing, his energy and his embracing of the variety of technologies that are out there. I mean, you know, as you probably heard from other people, it's not always easy to get faculty to embrace the technology. And so in that first year, and even after that, when faculty are not part of the mobility initiative, we have faculty to this day who ask "Is there a way I can turn off the wireless in the classroom?" And it's like, no. There's no way you can do it. First of all, in most of our classrooms we don't actually have wireless. It bleeds in from the hallways. So it's not- when we set up our wireless network, people weren't thinking about using wireless in the classroom. They were thinking, okay, this is going to be used outside. And shortly after we had done this, the mobility initiative started. And I was like, okay, if we are going to use these as clickers in the classroom, we have to figure out a way to get more wireless bandwidth. So we worked with our networking group to actually get those installed, and some of the students complained. They said they'd go to the classroom, pull out their iPod Touch to use as a clicker, and the faculty member would tell them to put it away. And it was like, so we actually had to go and speak to these faculty and said they're part of this mobility initiative, and that kind of a thing. Little by little it took convincing for this. I have not heard any of that. It's amazing to me how in what I would consider a relatively short period of time, probably after that second year, I haven't heard any faculty complain about students using their devices as clickers, primarily because we've helped enculturate the concept, but so many students now come with devices that can be used. So you don't have to- it's cheaper for the students to use these. And when everything is about reducing costs for students and that kind of a thing, it's hard to argue to a student that no, you have to buy a \$50 extra device that you can only use for this, compared to a \$16 or \$30 license to use for the whole of your college career on this, and it can be used for a variety of things. So I think that's helped quite a bit. But it's helping our faculty understand how technologies can be used, is still- what's interesting is some of our faculty who are some of the most technologically literate don't understand how to engage students in a way that basically says, yes, you can use your technology when it's appropriate. And I think it's one of the things that we're working on, is how do you help faculty understand in an active learning environment, your students aren't going to be necessarily drifting off on Facebook, or doing online magazines, or whatever, where you have an active, engaging environment. And that's one of the things that a lot of our mobile learning faculty embrace very well. They're not worried about the technology in the classroom. They engage the students, and I think where we're trying to engage our faculty, our faculty are working to engage their students. And I think it's that active learning experience that we have worked with and that's been really functional for us. In the second round of the summer technology institute, more than half of the faculty participants focused on mobile learning. And so it was from six to eight in the first year to more than half. This past year we actually had to create a second section of this to help engage the faculty. So I think there's a lot going on, and I think for us- I can talk a little more about projects, if you like. Let me kind of categorize it. They are projects that are in class. Things that they want the students to do right there in class. Frequently those are Twitter and clicker kind of things. Things that are immediate, things that are quick. They're not long-term kind of projects. There are other projects that are focused solely outside of class. They're data collection. They are pieces that they want the students- architecture class or urban planning class, for instance, actually have their students do a walking tour of College Park, the town that we're in. And so where the students would mark

where there were cracks in the sidewalk, it was uneven, it was trash or those types of things. And so it's an assessment of that. And then they took that data and put it up into Google Maps. What we did for that is basically, because there's been so much data collection requests, we actually created an app for data collection called UM Forms. And so where we can actually put in these questions, put it up into a database, they can extract out of the database, they can be put into KML to be put into Google Maps, things like that. So it's an interesting way for our faculty to do that. And then the third part is really kind of probably the communication interaction piece that happens with mobile devices, things that are really about connecting. Connecting with classmates, connecting with faculty, connecting with the community. And I think those are some of the more interesting pieces in many ways. It's how do you engage not just what's going on in the classroom or gathering data to be analyzed, but how do you actually interact and use that social connection with these devices? We have one faculty member, she's working on this project. It's going to be a long-term project. We have a hillock here on campus that has pretty much pristine forest on it. It's never been constructed. It's had damage done to it, but only by nature. And so what they want to do is actually mark out a trail within that hillock, and actually highlight where certain things are. We're going to use QR codes to do this. And then what she wants to do is create a website that actually provides for interactive experience for the students. So somebody could go in, they could go in and check out that bar code, see that, know where this plant is supposed to be growing or this tree, take a picture of what it is in the spring or in the fall, mark the date and time, so people can actually see the progress of what happens through the year. And what they will do is use this in classes so they can follow this. And a variety of classes on campus will use it, not just her natural resources class. And so it's a really cool project. She's also doing- we have an arboretum on our campus. Our campus is an arboretum with a variety of trees and everything. And they've created an app to actually do a walking tour and understand the trees that are on the campus, and get that information about the arboretum. This is in a sense taking it one step further, really providing that interaction, allowing for kind of a Yelp experience, but on the hillock.

Q. It seems like you've hit a sort of critical mass, where one faculty sees what the others are doing and that gives them ideas. It seems like it's creating a culture around it that sort of snowballs.

In some ways, yeah. It's really very- again, we're still at the leading edge of our faculty. This isn't a mass faculty experience. Acceptance of using mobile devices has grown, but looking at how to really create an active learning environment using mobile devices is really kind of just burgeoning. But I agree, I think the creativity on some of these are great, and the fact that we're able to help support these faculty is tremendous. Our focus has been over the last few years, how do we engage our faculty, because without our faculty being engaged, the students could have the devices. They're not going to do anything. We have a program that started this past year called Digital Cultures and Creativity. The students in that program actually received iPads. And what was interesting about it the fact that it was a new program, they were just getting started. They had the option to get the iPhones or iPod Touches or the iPads, and they chose to go with iPads. What was fascinating about it was the fact that it was actually the students who taught the faculty to understand how to use the devices. And the faculty were in a sense overwhelmed with this new program. These are all new courses. They hadn't been taught before. And so in talking with the faculty, they're like well, we really don't know what to do with them. Because they didn't know where the classes were going and how they would actually experience. Where the students had no problem. It was like, oh, these are great, I love the iPad, that kind of a thing. So it was perfect. The iPad came out, what, April of last year. So these students got those iPads four months later, in August. And it was amazing what they were able

to do. And what's interesting is this year we have a new set of faculty. I was just communicating with one, he was like, oh, will the students still get the clicker license? And they increased their numbers almost by 50%. I think they were at, they had about 55 students last year, and I think they have almost 30 more than that this year. But what was great about it was that he's already thinking about the different pieces that he can do, and how he can plan and use the devices with the students. Actually engaging them in their courses. Now they did do interesting things, because it's a living/learning program, they actually did very interesting activities with the students, where the students would actually bring the devices to different activities and field trips, and they would actually engage in that in a learning activity, but not a formal learning activity as you would experience focused on a course. Which is very cool.

Q. That program looks great. I was looking at the site earlier and wishing it was around when I was a student. I've heard people talking about the myth of the digital native, and a few people say that the first-years have a very limited scope of what they can do, just using Facebook and a few programs, and then they are nervous about trying anything else. Do you find that in the classes? Most likely not in the Digital Cultures and Creativity course, but others?

It's everywhere, at every level. As you pointed out, students self-select into programs, so students in English don't expect necessarily to be using a lot of media. Some of the students were like, why are we doing this? Other students loved it. The communications course was a 300, 400 level course, and there you had the same reaction. It's like, I'd rather just use a journal. But you had a lot of students who thought it was much more convenient to use the device. So you do have that spectrum. I think the difference with the digital native is not so much that they know everything right then. I think that is the myth of the digital native. But that they do have an experience with technology that, when used especially in a social manner or a media, used for media, they get it. Not that they get how to do it and do it themselves, and the shyness still exists. If a student doesn't want to speak up in class, they're probably not going to want to do an audio blog. They might be fine with a written blog, but not an audio blog, or not a video blog. So I think those are those pieces that still exist. Creating web pages, they have no clue. Give them Google, Google Apps, Gmail, and as you mentioned Facebook, they're pretty confident, but not all of them. I have nieces and nephews, eleven of them, and they have the full spectrum. I have a niece who does everything. So for us when we're working with our faculty, it's helping them understand how they can reach those students. That they help make the technology not intimidating to the students. So when we do these loaner programs, we deliberately focus on helping introduce or orient the students to the devices in ways that help them to use them without fear of using them. And most of the students honestly pick it up and can do it. We constantly have students who are like, uh, I don't get this, or that kind of a thing. But by the end of the project, usually, most of the students are okay with it. It may not be their favourite thing in the world to do, but you know, they do engage pretty well with it.

Q. Was there ever consideration of having the students use their existing devices? You lose the common toolset, but students are already familiar with their devices.

We do. And I think Ron Yaros is one example. While his engagement, especially in that first term where he used the devices, was focused on the devices that we had, he actually has done this every term since that beginning. We're talking six terms now that he has done something like this, and most of the time he doesn't have the loaner devices and he's asking the students to use their own devices to do it. And then only for the interview project does he borrow the

devices and only enough for those students who don't have their own. So he's actually engaging with the students, because what he's chosen to do, rather than focus on a developed app or a tool that has to be purchased or something like that, he's focused on free applications. And he actually had an application developed for his course, all on his own. I know he didn't develop it himself, but I think he may have had a friend do it. And it basically kind of brings everything together into one app. He's working on the Android version of it, but it allows for everything to be brought together. So his students can use whatever device they have, whether it's an Android device, an iOS device, Blackberry, as long as they can get to tools that allow them to capture audio and video. Preferably, he likes to use Audioboo and Qik because of the simplicity of the tools, and how they're used, especially for his courses. So we do have some people doing that. Honestly, one of the things that we'll be working with over this next year is really focusing less on platform and more on engagement in different ways. One of the things, as we're looking at engaging our own faculty, our faculty are still a little reluctant to focus on is the idea of electronic texts. And I'm not talking actually textbooks, but whether it's OpenText, OpenContent, or e-textbooks, or a variety of different texts that can be used on these mobile devices. These lend more to the tablet-style devices, but I read a lot of stuff on my own device, through Kindle or Nook apps, that kind of a thing. And so I think what we're planning on doing this year is actually working with our faculty to help them explore the possibilities of content and activity apart from specific device. So we're building up a small set of devices that we can actually allow the faculty to borrow and use on their own, and work with these things. And then we're taking the concept of the mobile learning fellows one step further by creating a learning circle of these mobile learning faculty, where they will be able to share their experiences, talk about how they can use these devices, how they are using the devices, encouraging their students to use the devices, and building up that kind of experience in there. And so we want to make sure that again, we continue to engage. I gave a presentation at a conference this January where I pretty much said, and I truly believe this, that if I'm talking about a mobility initiative two years from now, there's something wrong. Mobile devices are becoming ubiquitous. I'm amazed at how many students have smart devices. I guess as somebody used to call it, an app phone as opposed to a smartphone. Something that really needs a data plan and can have a variety of apps. Basically, it's a computer in your hand. And at this point whether it's a tablet device or a phone, it doesn't matter to me. It's a mobile device that allows you to take your content, take your interaction anywhere you go, much more easily than a laptop did. And I'm amazed at how many students have them, and then how what we need to do is help our faculty understand how they can engage the students using those devices. Don't be afraid to actually take advantage of the fact that your student is going to be at a coffee shop with their phone or their iPhone or their Android tablet device. Engage them using those. Figure out ways that you're not longer limited to a cumbersome laptop that's going to be going with you around where the student has to open it up or that kind of a thing, and pull it out and seem conspicuous, where you go everywhere, people have their iPads out, their Samsung Galaxy Tabs or their Motorola Xooms, their iPhones, their Droids whatever. And they're interacting. And so again, our focus is going to be helping faculty understand how these things that are becoming commonplace, normal parts of our students' life experience, can be used in their teaching and learning.

Q. What would be some advice that you might have for others who are considering a similar initiative, trying to get faculty interested, and get the momentum up and do something similar at their own institution?

I think for us, I truly believe in a grassroots kind of concept. Although I think a lot of universities, you need that support from the provost. And so in a sense you need to work kind of top-bottom. Just to get that momentum, I think working in kind of a learning community, or community of practice is a great concept. I believe that our summer institute made a huge difference, because the summer institute focuses our faculty on a project. And so having something that helps them focus and guides them through the project development and gives them the time to actually do this, it was huge. And from that pool of faculty fellows, we've basically been able to gain this momentum. They work as mentors, and not officially as mentors, but it just happens that way. We can say, oh, wow, Ron, you did such great things. Marvin, you did an amazing job with this. Would you mind talking to this group of faculty who are thinking about mobile learning? And they work together, and they start working on their own. And so I think it's gaining that momentum, getting that initial pool of faculty who are going to show that. Another is working with the faculty and helping them understand how commonplace the devices are. I had an experience this spring that I loved, was the fact that I was walking from one building to another, and students were coming across, and I heard a bit of a conversation where this one student's saying, oh, do you have your clicker for your class? And the student says oh, I didn't know I needed a clicker. Oh, well, do you have a smartphone? And he's like, oh yeah. And he's like, well, you can use that for your clicker. And the fact that it was just a common thing. It was just, they know they can do it. The faculty aren't afraid of it, students pulling out their phones to be their clickers. That was huge. And so I think as these things become more common and ubiquitous, it will be less of a detriment. It's just helping faculty understand how they can do it, and I think that really comes best faculty to faculty.

Q. Where would you like to see it go? What would you like to be able to do in the future?

Well, as I mentioned a few minutes ago, I really don't see the concept of a mobile learning initiative being a prevalent topic in a couple of years. Mobile learning will be so common, using devices will be so common that it's not going to be something, at least in my mind, that needs to be a focus. So really, my mantra for my many years that I've been in this field has been technology is a tool. It's just how you use the tool that makes a difference. And I think it's really helping faculty understand that this is the tool of the moment, and that in the next engagements, as we look at them, while I don't think it should be a conversation as mobile learning, but taking that mobile learning, that next step, in mobility is really kind of looking at the things like Layer. You know, these cutting edge technologies, and how they can really be used, not just for information distribution, but for simulation, for engagement. What is the next great tool? I can pull out my Horizon Report and take a look and see what they're saying. Not always correct, but I think it's really kind of seeing how that's going to take place. I think connection is really the next step. My background is in languages, so I did my Master's work in Spanish linguistics, and so near and dear to my heart is that concept. There's basically information distribution. It's the standard concept of lecture, or a static web. Basically, I'm going to give you information. There's a concept of interaction, and I think that's where, okay, we're passing information back and

forth. We're working on (inaudible). It's that next step of collaboration and engagement, and really feeling engaged and part of a community, or stepping to that level. I think that's really well my hope for mobile learning would be, is that really taking it beyond the isolation of a campus or a classroom or a course, but mobile learning truly becoming a lifelong piece. You want to engage with people, you take in all of that news and all that information that you're getting from the various experiences, whether it's a news site or a Twitter feed or a Facebook feed, that kind of thing, and seeing how you can engage back, and put that back. And that's one of the things that I liked about that app that I was telling you about, or that experience that Marla McIntosh was looking at for our campus and the hillock, is that she wants that to be an engagement site. It goes beyond the concept of just sharing information and talking about it, but adding information, building on that knowledge base, and sharing it. And dialoguing with it. And I think that's kind of really the exciting piece of it.