

THE FUTURE OF THE MOBILE PHONE

[KOBAYASHI] Welcome to a podcast on the Future of Mobile Phones. I'm Yuri Kobayashi.

There are three times as many mobile phones as PCs today and twice as many mobile phones as credit cards or TVs. Technology experts predict we are moving toward a digital world with the mobile phone at the center.

Here to discuss the future of mobile phones are Bill Myers, Director of Business Development of Motorola and Christopher Von Koschenbahr, IBM's Mobile Learning Executive. Welcome gentlemen and thank you for joining us.

[MYERS]: Thanks for having me Yuri.

[VON KOSCHENBAHR]: Yes, thanks Yuri.

[KOBAYASHI]: So Bill, as we all know, in most countries mobile phones are already doubles as a PDA, music player, video player and game device. What are some of the new features and applications that you foresee in the next three to five years?

[MYERS]: Well a lot of that is really around how those devices are going to continue to grow and take over more and more of your life and more and more of the ways that you relate to the world around you.

And so they're increasingly becoming navigation devices, in ways you keep in touch with a social network, there are ways that you can do your calendar and e-mail, of course, and increasingly ways that you are entertained in all sorts of different ways.

Whether that's downloading videos directly across a 3G network or tunneling back into your, the content you have back in your home PC. So all of those are areas we see a lot of growth going forward into the future.

And an awful lot of what we are looking at are ways that we're going to make that experience easier. There's a lot of capabilities in the phone but studies that we do on how people use their phones show that people are still sort of scratching the surface of the capabilities of their devices.

And so a lot of what we're doing is trying to figure out ways to make those devices better fit in with people's lives as well.

[KOBAYASHI]: One of the inhibitors using mobile phone as a computer for instance is that the screen and keyboard are too small. So Christopher, how is that changing?

[VON KOSCHENBAHR]: We're seeing prototypes now where there are projections of the display out onto, for instance, it could be onto a wall. So now all of a sudden the physical screen size is larger and likewise there's new interactions.

So again, getting outside the physical constraints is going to help the higher level of adoptions where we can actually use these new devices as increasingly for learning, help people on the go.

[MYERS]: There's a lot of things that are all kind of coming together now I think to really make this experience transform into something that in five years from now we'll look back at the phones we have today the same way we may look back on some of the phones that we have around [I use them here] where what did you do with only nine buttons on that thing, you know, come on, how could that thing have worked. I think one of the next areas we see, we're focusing a lot of research and I think will start to be a much, a broader, of broader value to people who are using these devices is when you get to more of an open vocabulary, speech recognition system and allows you to do things like the sort of searches you hear happening in navigation systems in cars today. Or you can use the voice input entry in to specify what sort of restaurant you're looking for even and have the system do a work in the background to get you to the place that you want to go.

We see than sort of technology coming into the mobile devices to really enable that experience where you can relate to the device in whatever way makes sense to you.

Some times that's via text to speech sort of a technology. Other times it might be something visual, but it's about sort of, again, a part of it is about personalization, it's about you and your device building a sort of relationship.

I know it sounds kind of silly where you know what your device wants and your device knows what you want and you work together to accomplish whatever that goal that you're trying to accomplish is.

The more the device can more richly understand what you're trying to accomplish, the better it'll be able to deliver that experience to you.

[VON KOSCHENBAHR]: With so many people mobile, the chances for face to face meetings has dropped. And so I had an example where I was actually in a town, one of my best friends from IBM was there the same week and we didn't know it until we had left.

And so the idea of if I could have my profile detect that I'm nearby people who have similar interest or work attributes, there's a possible opportunity there to bring us together.

So the technology of the phone and the infrastructure of the location combined with my profile has an interesting opportunity to bring us together.

[MYERS]: We are looking at one of the other things we see transforming in this space is the incredible sort of wake that's come along with social networking and how are those really going to transform a lot of how we relate to each other and how devices that we use, you know, computers and phones and everything else can really enable that sort of a social networking.

Whether that means what songs you like you like to listen to, what songs my buddies are listening to or TV shows or whether it's knowing that I'm running late for a meeting but don't worry about it because Chris is running late too. I mean all that sort of stuff....

[VON KOSCHENBAHR]: That'd be great.

[MYERS]: Yes, exactly. And we see that's all stuff that's coming out in a relatively short time.

[KOBAYASHI]: In Japan, which is where I come from, you see people buy things at stores by waving the phone in front of sensor at the cashier or swiping their mobile phones to get on trains or airlines, busses and taxis and I was just wondering why these mobile applications are not yet widely adopted in the United States?

[MYERS]: Yes, and they're starting to. So in fact one of the guys who works for me in our team is one of the people who's driving our mobile commerce and NFC or near field communications initiatives around commerce.

And so he has one of these phones that has an NFC mobile wallet solution built into it. And in the US there are restaurants and places like that that take it. And McDonald's happens to be one of them. But he says you get a pretty funny look when you pull into the McDonald's drive through and the guy says it'll be four dollars and you hand him your phone, he's like what am I supposed to do with this.

And we definitely haven't gotten to the point where it really is a part of how people look at commerce in North America yet. But we see things starting to turn there a bit.

You know one of the examples, one of the things that we think is going to be a relatively early adopter in the US market is the US does a lot of work around things like loyalty cards for different stores you may go to or companies you frequent.

And so we're looking at applications like that as being something where consumers are sort of used to having something that they carry around with them to access that anyway and they're used to getting some value for it. So it's worth carrying one of these cards because I know after every 10 cups of coffee I'm going to get one for free or whatever the deal is.

And so we're seeing those sorts of opportunities as being something that might be a first entry point for this sort of technology in North America. And then once that starts, I really believe that once...it is sort of a chicken and the egg thing that needs to happen with respect to phones and infrastructure.

[VON KOSCHENBAHR]: Hey Bill I'd like to see after every 10 phones I get one free.

[MYERS]: Yes, I'm sure we could do something like that.

[LAUGHTER]

[KOBAYASHI]: Bill, you talked about the near field communication technology. Could you elaborate a little bit?

[MYERS]: So there are a bunch of different ways that we look at this phone interacting with your environment. One of the is NFC or Near Field Communication which is basically very short range wireless connection to a what we call a passively powered device.

It could be a chip that's buried in a poster for example with a little antenna around it. And as you move your phone up close to it, signals from your phone energize this chip, it sends some signals back to your phone that you can do a little two way conversation and then you can find out information or it can find out information from you.

So in the case of a smart poster maybe you go up and you hold you hold your phone next to a poster and it downloads a song.

On the flip side also you can take it into a store for example this McDonald's story and then you through that sort of wireless RF communication you can take your phone in and recognize your wallet application you're running on your phone, it'll talk back and forth and it'll go ahead and debit your account the amount that the lunch is costing you.

You could certainly use NFC to do a broader tagging sort of applications to know, you know, you're doing things like interactive, any sort of thing that could exist in the physical world around you but there are also other ways of doing things like 2D barcodes and TR codes where you could just take a picture of something using the camera that's built in just about every phone nowadays and use that technology to look up URLs or to get additional information about a product.

So there's a lot of different technologies. NFC happens to be one that we think has a lot of benefits for a mobile wallet sort of application.

[KOBAYASHI]: Chris, as NFC and other new technologies allow us to get more relevant information from our phone, how might this add value to say, the business traveler?

[VON KOSCHENBAHR]: Regardless if you're traveling first class or coach class, we all end up at the boarding gate about 15, 20 minutes in advance of the flight and there's a tremendous opportunity there if we can deliver something contextually relevant to that person that they instant on their mobile device and listen to a new sales offering or the silver bullet against the competition in 10 minutes or less on that mobile device.

Again, the trick is really getting what they need, where they want it at that moment. But the fact that the industry is moving that way with the bandwidth and user to use devices is a tremendous help towards that because I think there's a huge benefit for corporations to be able to deliver that information in that 10 minutes or 15 minutes of what I call dead time or down time.

[KOBAYASHI]: Bill, can you give us an example of how the mobile phone will get "smarter" over the next few years?

[MYERS]: We're definitely looking at how these phones can take advantage of the rich source of context they have access to. And so in our language internally here in the industry we talk a lot about context and context enabled applications and context enabled devices and really that's about understanding the context in situation in which a device is being used and then having it respond accordingly.

So an example I always use is every day when I walk out of my office it's five or six o'clock at night. As I'm walking out the door I am sparring up my podcast to play, but before I do that, I always call home just to let people know I'm coming home.

And if there was a way that my phone could realize that that was always what I did every day and as I was going along it didn't make me scroll through my phone book and it didn't make me launch the podcast player application, just sort of knew that's what I wanted to do, it's not a big deal, right, but it makes my life a little bit easier as I go.

And then if you can build on that and as the phone knows more and more about me and my interests and my patterns, it starts to get some little things we talked about a second ago with some of the social examples of how if my phone knows me or knows where I'm going and knows the patterns and things I do and knows the meeting I need to get to and knows that I'm meeting with Chris and he's running late because his phone knows all that stuff about him, that's great.

If my phone knows the sort of music I like and knows the music and the other people that I like are listening to and can help me to discover some additional music, there's an opportunity there for my phone to know more and to make that experience richer for me.

And so how can we make sure our devices are smart enough to learn from the changes that we make every day.

[KOBAYASHI]: I'd like to really thank you two for joining us today, thank you for your time.

[MYERS]: It was fun, thanks for having me.

[VON KOSCHENBAHR]: Thank you Yuri.

[END OF SEGMENT]

For more on the future of the Mobile Phone, see [Ideas from IBM](#).