

**SESSION 3: MOBILE APPLICATIONS - GAMES, WIDGETS
AND MORE**

MS. YODAIKEN: My name is Ruth Yodaiken. We are here for the session on applications. We are going to learn from our panelists a bit about the new ecosystem that we see on phones. This will provide a framework for the discussions that we are going to have further and one of the things we are going to do here is we are going to talk about some terms that are going to become very important in all the discussions later today.

So, Steve Boom, Senior Vice President of Connected Life at Yahoo! has generously agreed to start us off with a couple of slides just giving us generally some of the terms we are going to use and the framework that everybody is going to be discussing. And then each panelist is going to come up here and talk a little bit about one aspect of the mobile ecosystem and some issues that they want to talk about and our panelists -- we are also going to have some demos here, so we can see how these things work. So, if Steve can come right up.

MR. BOOM: Thanks very much. So, just to give context for the rest of the presentations today, we have already heard a number of acronyms this morning and to try to prevent you guys from going through technology terminology

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overdose here, we thought we would start with a bit of context setting. The first of which is I think most people probably have a fairly good idea of how the PC internet works. That is our frame of reference for the internet. And we thought we would actually contrast the state of affairs in mobile with the PC as kind of a useful tool to help explain the problems that the different panelists here are trying to solve with their companies.

So, from an internet perspective, the PC is actually fairly straightforward. All the devices have a particular set of power whether it be microprocessor power or memory in them that allows you to do web surfing. From a developer's perspective if somebody wants to build an application or build a website, it is pretty easy. Why is that? Well, there is really two operating systems that you have to think about. One is obviously Windows, the other being Mac and, frankly, until the last couple or three or four years, you could get away with not even worrying about Mac and you could just do stuff on Windows and you could still get 90 plus percent of the market.

Similarly, there is really only a few browsers out there that you have to deal with. So, you have to make sure it works on Explorer, you have to make sure it works on Firefox, on Safari and on Opera. That makes your life easy

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because you do not have to test how your website looks against 2,300 different variations. It all looks kind of the same and they all run on pretty much similar standards on a similar screen size that makes life easier. Again, the hardware is easy. They are very rich. We all have a keyboard, we all have a mouse. There is no really voice input. There is no touch screen input. There is no different dials and knobs.

Fundamentally, all the devices, whether it is made by Dell, Apple, Hewlett Packard or whatever, they all operate in fundamentally the same way.

Lastly, from the perspective of getting your services out to the market, it is pretty straightforward, it is pretty open. What I mean by open here is that no one really controls distribution of PC websites. You build a website either through viral word of mouth or doing marketing on Yahoo! or Google or some other website. You can make yourself known through traditional means. There is no company that has an ability to restrict access or there are not companies doing that, that are restricting access to consumers enjoying whatever website they want.

If you just think about how quickly some of the most popular services on the web evolve or develop, it is clear that it is an open distribution channel. YouTube went from start-up to being bought by Google in something like

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14 months. Yahoo!, when it started, was a public company within 15 months of getting its first round of venture capital financing. That is an open environment where innovation really can prosper.

Mobile is almost completely the opposite of what I just described to you. There are multiple operating systems. We heard earlier today the distinction among basic phones, feature phones and smartphones. So, the phones out there all have widely different capabilities in terms of processing power, screen size, memory and what that means is what you can do on a phone is very, very different. It is not like the PC where you have kind of a baseline, everything is at a certain level and then there are some that are specialized for gaming or specialized for video or whatever. But, fundamentally, on mobile, you do not have the same capabilities.

Then if you are a developer, you have to worry about Windows mobile, you have to worry about Symbian, you have to worry about Java, you have to worry about things that are not even standard operating systems, but are very tightly controlled proprietary systems on Motorola, Samsung, et cetera.

Then there are 20 plus browsers and that is actually a fairly conservative view of how many browsers there are.

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In fact, one browser made by one company that could be on five different Nokia phones might actually be five slightly different implementations of that same browser.

So, as a developer, somebody thinking about I want to build my website or I want to build an application on mobile, you have this incredibly complex ecosystem where now you have to think, okay, how does it look on this browser, that browser. Oh, and now, actually, Apple just came out with a touch screen interface. Now, how do I modify my application to work there?

And it is a very complicated distribution channel system, meaning the handset manufacturers and primarily dependent in North America, the operators actually control a lot of what users can get access to.

So, some key mobile terms, you might hear on deck/off deck. On deck refers to content applications that you access by going to the operator's portal. This means when you open up your browser from AT&T and it defaults to that browser, that is what you see there. Off deck are things that consumers would traditionally browse to independently, things that someone like Yahoo! or Google might provide.

Widgets, applications, these are software programs that you can download and install on your phone to do things that are different than what you can do on just a regular

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website or in a browser.

Walled garden, I think the best way to describe this is AOL before the internet came and AOL after the internet came. Walled garden was when you are just on a closed environment and you have access only to a certain number of sites or services. And that is very much what historically the mobile world has looked like. A non-walled garden is really what you think of as the open internet. I am not going to read all of these, and since it looks like I am out of time, Ruth is giving me the evil eye, I am going to sit down.

(Laughter.)

MS. YODAIKEN: All right, thank you very much. We are trying to get through these quickly, so we can make sure -- try to get some time.

So, next we have up is Thomas Ford, Global Market Strategist of Consumer Products for Opera Software.

MR. FORD: Good morning. So, I guess we are probably not as famous as some of these other companies out here. So, I will give you just a brief sense of who we are.

We are not related to music at all. We do make web browsers.

We have made web browsers since 1995, and since about 2000, we have also made browsers for mobile devices. So, we have been in the game for a long time and have really seen it develop and build up to where it is today.

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It has been a pretty big ride for us since then.

I will not go through all the points in the slide, but we started off with an office with just two people in it coding the browser, and now we have more than 450 -- we are actually headquartered in Scandinavia in beautiful, scenic Oslo, Norway. But, obviously, now with a more worldwide presence in trying to bring the web to a host of devices globally.

So, a little bit about what -- and to what Steve really talked about was how there is a vastly different ecosystem on mobile devices in terms of web browsing and empowering the web on those different platforms. What we really are looking for is something we call the idea of one web. It is really kind of in our DNA, it is who we are. We want to provide the best internet experience on any device.

We want to make it tailored to that device, but we also want it to have the same kind of experience that you would take with you from day to day from different device to device.

That is sort of what we do and what we strive to be.

So, this notion of one web is really that you access the same types of services from device to device. You do not really care -- what you access on your Nintendo Wii at home, you also want to access the same type of content on your phone versus your PC on the desktop. You want it all

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to be the same, you do not want to necessarily have a very bad experience from device to device.

And I think we kind of are starting to see the beginning of that. We went down the whole idea of WAP before.

I guess that was not in the definitions that Steve presented, but that is Wireless Application Protocol and it is built on something called WML, Wireless Mark-up Language. We have felt that that is not going to be the way forward in the sense that WML does not have the same kind of interactivity that people have now come to expect with things like the iPhone, with hopefully our own products, and various number of contexts there.

So, we think one web is really critical for both players in the wired and the wireless ecosystem to embrace.

The next billion people are going to connect to the web and they are going to do that probably with some form of device, maybe a phone. Probably a phone. So, I think one way to look at it is we think we are in the business of breaking the barriers that exist on those different devices. But we will see where that is today and where we have to get to.

So, just real quick, I will give you a more visual take on this. The browser really becomes the glue for all these different experiences. When you go from device to

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device whether it is YouTube that you access on the TV or through your Nintendo Wii, that is browser driven, whether if you are in Russia and you are moving around, you have Yandex on your mobile phone, that is still very much browser driven.

I think a lot of what we see from Google and Yahoo! still is a lot of that is browser based. That is where we fit in, we feel, into the whole puzzle here.

So, now, I have blown through a bunch of slides here and now only to come back to this idea of abandon the one web concept to talk about the mobile web. This is sort of what I think for a long time the mobile web was to a lot of people. It was a WAP page. I do not mean to pick on the Financial Times, they were just a convenient target. You know, it is text based, it is not very interactive, it is meant, obviously, for a very good reason, to give you information on the go. But I think now people's expectations have shifted because phones have become more powerful, browsers on the phones have become more powerful. And so, now people do expect to get a much different experience.

I guess you could see from this it probably was not something that a lot of people really wanted to pay for, and I think that is why mobile web adoption has lagged behind what we expected to see. But, now, I think what we can see

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today is that it is much better. Obviously, earlier today, we have talked about the iPhone and things like that. But even with our own products, it lays out -- this is the BBC.

It lays out very similarly to what you would expect on your PC. So, it is easy to take that experience of using the PC and browsing and getting comfortable with the service and moving that right on over to the mobile side.

Here what we are doing is we have a handy little cursor there and you can jump into the content, and it is the same way really with Safari on the iPhone, being able to pinch and zoom in and things like that. That is what people are expecting and we see that now that they know this is possible, that they really are coming over to the idea of the mobile web. So, as I said, it is a very different place than it has been.

There are two ways to get that really good mobile experience and sort of two ways that we do it. We have, one, Opera Mobile. That is the heavy duty browser you would put on a smartphone, for instance. You heard sort of the breakdown of the market earlier today. That is actually something you put on your phone and it does all the processing on your phone and it has a bunch of capabilities like tap browsing and flash and widgets and it is a very, very elegant solution.

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But, of course, we also heard that there are many, many phones out there in the marketplace that do not have that sort of capability, but can still view web content. For that we have something handy called Opera Mini. It really is quite mini, it is about 100 kilobytes, much smaller than a photo you would probably take with one of today's camera phones.

So, the way that Opera Mini works is a little bit different. Because phones that it can run on, and it runs on just about any phone that has Java, so you can have a ringtone or a Java game. How that works is it has a server that sits in the middle, so you download something very, very small to your phone. When you want to surf a page, you will call over to a server that runs a much heavier version of Opera and we crunch it all down and put it on to your phone.

It displays very much the same way that you would expect it to on a PC.

Like I said, we are aiming for compatibility with a billion phones, not the 30 or 40 handsets that are available running Windows Mobile that have all the kind of capability you expect. And I think what we have seen from that is really mobile web browsing really start to take off on a massive scale. I am going to show you some numbers and in a couple of weeks we are going to present a lot more on that, in fact.

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Of course, PC Magazine thinks Opera Mini might change your life. I hope we change it for the better.

As I mentioned, you can see the kind of growth here.

Right now, we have about 43 million people who have used Opera Mini. On an average month, we have more people using Opera Mini than this year will own an iPhone. I think that is fairly significant when you talk about the kinds of numbers you see from people browsing on the iPhone. I am going to show you some page numbers in just a second. But, I mean, in the U.S., it is good for people who want the information they are used to on the go. They want it to be a good and interactive experience, a very entertaining one and engaging one.

But then in a lot of other countries, too, the mobile web is really the way that they access the web itself.

So, for instance, we see more use in Bangladesh of Opera Mini than they have land line subscribers to DSL or broadband or even dial up. So, in countries where PC penetration is slowing or is not as prevalent as it is in the developed world, Opera Mini really is a great service for that.

So, people sort of wonder, well, are people really surfing. Well, we see that 2.3 billion pages a month are moved through Opera Mini. So, on the average, the average heavy user of Opera Mini will probably browse somewhere in

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the neighborhood of about 200 pages per month. That is fairly significant. I think in the U.S., actually, it works out to about 204 pages per month. So, people really are using it. And if you look at this graph, the most interesting thing to note is the big jump between November and December of 2007.

That is when we actually introduced that zooming that I talked about.

So, once people had a really good experience, they were willing to use it and they were willing to pay to use it. So, I think we can see that the mobile web is coming along and it is moving forward.

Now, I was going to have a really flashy and cool demo, but I am not technically competent enough. I could not get it working a few moments ago, so I am just going to briefly go through what you would expect to see and why people can actually start to do some of the similar things they would on their PC on their mobile phone.

So, when you start off Opera Mini, you would see before you a very beautiful start page where you can search and you can keep your bookmarks, you can actually synchronize it between your PC and your desktop or, sorry, between your PC and your mobile phone. But I will get back to that in a second. You can obviously enter URLs, do all the basics. Access news feeds.

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Then as I showed earlier, you have the ability then once you pick up a page, it will call out to a server we have, we will crunch it down, we will send it to your phone, and then you can move around. We will give you a cursor, sort of a mouse, you can dive right in to it. It snaps to the content, so it lays out very effectively, easy for you to read.

The most important thing though now, besides just viewing news and things like that, you also want to be able to do everything else you would with your PC. We are actually the only transcoding solution that is end to end secured, so you can do things like bank and you can shop and you can check your email, you can do all those things. Actually, Barclays Bank in the U.K., one of the largest financial institutions in the world, recommends Opera Mini for their online transactions through the mobile.

So, we encrypt all your personal information and that is very key when you know that there is a server sitting in the middle of your interaction to a specific site. I can get into more encryption details if you really want to know, but it is heavy duty stuff. Then the last thing, because we believe in this idea of the one web, we want you to be able to take all the things that you like doing on your PC and bring it to your mobile. So, we just introduced

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something called Opera Link where you can take your bookmarks, your speed dial and sync those up and keep them synced in real time between your PC and your phone. So, mobile web I think is here to stay and it is here to grow. Thank you very much.

(Applause.)

MS. YODAIKEN: Now, we are going to have -- Steve Boom is going to continue.

MR. BOOM: So, I am back. We have heard how mobile web is going to be big and how big the opportunity is. Our mobile mission was really to enable the ecosystem for billions of users. One of the things sitting in the U.S., you tend to forget when you see the numbers, how big the PC penetration is here. I will not call it unique in the world, but it is not representative of the rest of the world.

So, while the number of PC adult users in the U.S. approximates almost what you have on the mobile device, if you go to many other places around the world, it is quite apparent just walking down the street that the primary and only way that consumers are going to access the internet is actually through a mobile device.

So, when we think about how big we think this is going to be, we think in billions. Yahoo! today serves a half a billion, 500 million users around the world of Yahoo!

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services. So, when you are thinking about billions, obviously, it is a pretty ambitious goal. After 14 years of being on the internet, we are at half a billion on the PC, and we think in the next several years, we will actually reach billions on the mobile device.

Now, enabling the ecosystem, this is similar to what Yahoo! did in the early days. In 1994, when Yahoo! launched, it was really a directory of websites. When people first came onto the internet, they did not really know where anything was and what they did is they came to Yahoo! and some other sites and they surfed the web. This is how they found what existed on the internet.

Now, we have a more challenging problem on the mobile device, which is not just about how do you find what is out there, it actually is the stuff out there in the first place. On the mobile device, for the internet really to succeed, it cannot just be players as big as Yahoo! and Google and Microsoft and others who are able to produce applications that run across multiple devices. For the internet to take off on the mobile device, it has to be possible for developers of all financial wherewithals. That is really challenging.

Today, if you go to a restaurant and you show your -- you have a Nokia N-95, which I will do a demo on in a few

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minutes, and you show a cool application that you downloaded, but your friend is running a Motorola Razr, the odds are better than 50 percent that your friend will not actually be able to use the same application that you showed him. That is a real problem because one of the ways that the internet, as we talked about earlier, spread was through word of mouth and through viral adoption.

So, Yahoo!'s approach to this is actually to try to solve that problem specifically. To enable the ecosystem, we have to make it easier for people who want to develop applications to be able to reach a broad set of devices across all the operating systems, not just Windows Mobile, not just Symbian, not just again across Java, but across all of them.

So, we launched in February of this year something called the Yahoo! Widget platform. Basically, what we have done is we have taken the technology that Yahoo! developed over the last several years that enables our stuff to run across hundreds of different devices, reaching hundreds of millions of different devices today and we have opened that up for third parties. They can go to our website, there is a software development kit, an SDK, one of the terms that was on the earlier slides. They can now program an application right at once and it will run across hundreds

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of different device types today. This is how we plan to solve the problem. We think that if you can get developers and publishers access to the hundreds of millions of consumers today, this is how the mobile internet is going to take off.

Just from a diagrammatic perspective, developers and publishers, these are people with websites, this is the guy with the blog next door, how is he going to get his stuff mobile? He would come to our website and download the SDK, write his site in Blueprint, which is the language we developed, and it would now be accessible across all these different devices.

What we have done is taken all the complexity of what I described to you before, taken that complexity out of the system. He does not have to worry about what is this going to look like on an iPhone versus a Symbian device versus the small screen on a Samsung phone. That is the hard work that Yahoo! does, that is the stuff we have been doing over the last several years. He just has to decide what it looks like and then our system will actually determine the best way for it to run on those different platforms.

It will not look exactly the same. If you are on an iPhone, it is going to be richer and more robust than it would be on a Motorola Razr. That is just based on the

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capabilities of the phone.

Since we have launched, we have had a number of third parties who have actually developed widgets for the platform. If you are a consumer, you can go to our website or you can go to m.yahoo.com on your mobile phone browser and you can get access to these services and many more. Some of my favorites, I travel a lot internationally, I downloaded a currency conversion widget, so wherever I am around the world I have quick access to learn how poorly the dollar is doing.

(Laughter.)

MR. BOOM: I have my daily Dilbert cartoon, so I download that and every day it is updated and I can see the latest Dilbert cartoon. I actually do happen to be a big soccer fan, so you see Eurosport which is sort of like the ESPN of Europe. I access that and check out what is happening with Arsenal and I can track my auctions, et cetera, et cetera.

And this platform has been out there for about two months and we are starting to see more and more third parties come on and develop it and now individual consumers are downloading these widgets into their widget engine, and I will show you that in just a minute.

So, the way you access this is primarily through a product we call Yahoo! Go, which is a downloadable Java

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application. It runs, again, on hundreds of different devices from this Nokia N-95, which is sort of the top of the line Nokia device to a Motorola Razr to a BlackBerry to many other types of devices. When you download this, it is customizable by the user. The user can select which applications he or she wants to access. They can take stuff out, they can put new stuff in. Then they can access what is called the gallery and the gallery is where you go to look for third party applications and customize this to your personal interests.

I would like to do a short demo because I figured a lot of you maybe have not actually used stuff on a mobile phone and you might be interested to see what it looks like.

So, I know I have to tell the AV team that I am going to the demo. And I guess for those of you on the slides, we have something for them to look at.

MS. YODAIKEN: So, for those of you who cannot see, he is plugging his phone directly into our system.

MR. BOOM: Yes, this is actually a live phone. This is running the Nokia N-95, this is like a handy -- it is like an advertisement for the Nokia N-95 for today.

(Laughter.)

MR. BOOM: I will take my collections later. But it has a handy video outjack, so it is great. So, here I

am. I am actually in Yahoo! Go. I have already launched the application to save us some time. You can see here that I can navigate around the phone and each of these little icons at the bottom represents a widget, which means a little mobile application. This one is about sports. This one is about financial information, this is news. I can get access to Flickr, which is Yahoo!'s photo site. I can get access to my email, et cetera.

So, let me just run through a use case you might see on a mobile device. So, email is definitely one of the top applications on a mobile phone. So, I am going to open my inbox here and I see an email from Dave saying, hey, there is dinner tonight. So, let me open up that message. Steve, I am looking forward to dinner tonight, let's catch a movie afterwards, you are the internet savvy guy, so you figure out the details and let me know. Later, Dave. Okay, cool.

Well, let me see. I am not sure what movies are out there right now. I have three children, so I do not get out much. So, I am going to go to our search application, and now, I am going to really test myself because I am going to triple tap in movies. And congratulations. So, I have just done a search for movies. Here you are seeing search results. We are listing some of the key movies that are out

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and then we have some, if you scroll down on the screen, you see some of the theaters that are playing, some news about movies, and then we go to all the different websites that you can access.

So, this is our Yahoo! 1 search mobile search product. But I have heard that Iron Man had a really blowout first weekend in the cinema, so I am going to check out Iron Man. And here I can get a description of the movie and, obviously, I am having dinner first, so I want to check show times. So, I click on the link in the middle of the screen that is highlighted in green there and it is going to tell me now -- I actually, before I started this, this is a GPS enabled device and I gave -- the first time I used it, Yahoo! Go asked me whether I wanted to make that information available to the application. So, it was an opt-in procedure. I said yes. So, it is now reading my GPS and knows where I am.

I am going to have dinner and I figure 10:15 at the Regal Gallery, looks like a pretty decent place to go. And where exactly is that, I am visiting from California. So, now, I am painting a map on the device. And you can see the number one there represents the cinema and the red dot over on the right hand side, let me scroll a little bit over, should be approximately where we are right now. So,

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there are some of the Yahoo! applications you can use.

But, again, as I mentioned before, Yahoo! Go 3.0 is an open development platform where third parties can develop stuff as well. What I have just shown you are a bunch of Yahoo! services, but I thought I would show you what does eBay look like in this widget engine as well.

So, I am going to go home and if I go see a movie with my friend, my kids will probably be jealous so I am going to see if I can look for something here on the phone. I am going to type in Iron Man into the eBay widget. Here are the search results. These are auctions that are up on eBay.

Let's see, look through here. A diecast Iron Man figurine.

That sounds really good. You should see my collection at home, it is stunning.

(Laughter.)

MR. BOOM: So, I think I actually want to place a bid on this, I think this looks pretty cool. So, I am going to actually put in 10 bucks, I hope. There we go. Now, I am actually on eBay and I have already pre-logged in here, so it recognizes me and now it is asking me, do you really want to place a bid on this. So, it asks that in kind of a directed, pointed way, doesn't it? It is like, are you sure this is what you want? The answer is yes and, now, I am going to see the items that I am bidding on.

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So, hopefully, this was a quick demo for you just to understand what is out there. This actually is pretty powerful stuff. You can actually do a lot on the mobile internet today. This is not something you need an iPhone for. Again, I am showing you on a pretty expensive, high-powered device. The only reason I chose that, besides the fact that it is a good phone, is it has this video out cable.

I could have shown this on a much lower end phone.

You would not have to go out and buy a new phone to do all this stuff today. I think the benefit to consumers here is that consumers can, by and large, use the phones they already carry in their pockets. They do not have to go down to the AT&T shop to get an iPhone in order to experience the mobile internet. There you have it. That is my presentation. Thank you.

MS. YODAIKEN: Next up, we have Andrew Elliott. Andrew is the Director of Services and Software, North America Go-to-Market for Nokia.

MR. ELLIOTT: Thank you for the advertisement there on the previous presentation. I really appreciate it.

I could not have done a better job. However, afterwards, if anyone ever needs to be in a situation where they need to do presentations with a mobile phone, I am happy to take

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orders afterwards and at least let you know where that is.

(Laughter.)

MR. ELLIOTT: Anyway, my name is Andrew Elliot from Nokia. You are thinking Nokia, they make phones, what the heck is this guy doing up here talking with us about software and what is going on in this space? Certainly, one would wonder whether we have a position at the table to talk with you all about that today. But I am happy to report on one level, we sell a fair amount of devices around the world.

We will probably hit a billion, if not already, very, very soon in terms of the number of consumers that actually have one of these devices from Nokia in their hands.

As a result of that, we get an opportunity to learn quite a bit about what it is consumers are doing and how they are interacting with the device and the types of software they may or may not want, the stuff that is on there, what is working, what is not working.

So, that, in combination with the fact that over the last several years we have been acquiring a couple of different companies, and basically all of that being embodied I guess the best way to describe what is being embodied through those acquisitions, things that were done, this thing called OVI. So, we talk about OVI as a platform for us, that we

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talk about services that we are now going to be in the situation of offering directly to consumers as well.

You see these icons across the top of games, music, video, contacts, maps, photos, internet, et cetera. Essentially those are the areas that we will be covering under the OVI umbrella.

By the way, if you could make sure I do not go over my time. I am sure you will. But I want to just have an opportunity to present in the last few minutes a quick demo of some things going on as well, too. Sorry, I digress.

So, this is another pretty telling number as to why we are even in this space. So, if I go to the next slide, it is big. It is an opportunity for a lot of people to make money. Again, this is just a pie chart to demonstrate how it is kind of breaking out or looking at it is going to move either way, depending on which analyst or who you want to talk to or whether it is our research or anyone on the panel's research as to what that number actually is. But everyone generally agrees that the number is quite large. Great.

We are a publicly traded company and we have responsibilities to shareholders, so we need to figure out how we are going to be a participant in this.

So, if I go to the next slide, one of them is in games and here is a news flash, folks, pay attention.

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Everybody plays games. So, that is going to be the focus of what I am going to be talking a little bit about. Whether they want to admit it or not, people play games. That is wonderful for us.

On this slide, what you are looking at is basically a way that we segment different consumers. On the far left is basically a consumer that you might typically associate with gaming, what we refer to as a hard core gamer. They probably have a couple of consoles in their house, they are playing it on PCs and any way they can serve up that appetite on a mobile device as well, they have probably downloaded several games onto their device, if we are lucky.

So, if I go to the next slide, this is where we say there is a little bit of a problem here. We think that in games, in particular, there is an opportunity for this market to get even bigger. First of all, okay, half the people who admit whether they play or not will actually go and say they are going to buy a game, right? Of that 50 percent that are actually willing to go out and buy a game, there is a small fraction of that amount of people that will actually purchase it. Then there is another smaller amount of that that will actually purchase another game.

Now, let's go to the console market or even the handheld console like a DS or PSP. Those guys live and die

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by attach rates. So, the platform is usually valued by how many games a consumer, a gamer buys to run on that console.

They like to be pretty high. Generally speaking, you know, four is a good number. Three is generally where they are at. On handhelds it gets a little bit higher or lower. We are not even at one. That is atrocious. So, we are going to try to fix that.

Now, this is a Nokia lens so do not take what I say here as gospel, but clearly this is what we are trying to do to approach this market and try to figure out how to approach this problem in the mobile game space. So, we have two offerings. We acquired a company called Sega Mobile a long time ago, five years ago. They got a platform, a technology that is utilized. Legacy-wise, it was originally launched on the Sega console Dreamcast. That same technology is used on a PlayStation, and when we acquired the Sega Mobile asset, we incorporated it into mobile devices or to be used in a mobile environment.

So, today, the games that run on top of that, when we talk about this thing called Snap Mobile, is designed to address the Java market space. So, Java games.

Then on the Series 60 side, the more high-end side, which is a device like this, which I am more than happy to take orders for afterwards, that is a Series 60 device and

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its gaming power I can show you shortly. But anyway, we just break them out to Snap Mobile games are a little bit more casual, Java, you cannot get too fancy in terms of the kind of innovation, although there are some pretty interesting things you can do. With at least our Snap Mobile platform, we think there are more interesting things you can do relative to that.

On the N-Gage side, you can do some really high end stuff. So, on a device like this where I am going on a 3G connection or over a WiFi connection, we can show you what that game experience might look like. You can do some pretty amazing things. In fact, it is even getting to the point where on a device like this, some of the content that will be coming out is on par with the PS2, and with the video out, you can actually be taking this game, play it on here, tap it into your TV and you could be doing it right there.

So, the controller and the game engine is on one device.

Pretty amazing stuff. But, again, we still have to figure out how to tap into what the issues are. I will show you that in a minute.

Anyway, here is the Snap Mobile kind of play. It is Java games, connected Java games. Fundamentally, when people play games it is really not about being in my own isolated part of the world that I want to play games. It

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is I want to play a game because, in actuality, it is a very social thing. That is why we say okay, this is inherently the perfect social gaming device. It is connected to the network all the time. I can find theoretically anybody out there. I put the game on there.

There is a community of people that have downloaded it as well, albeit small right now. But they can play games.

I find them, I go online, we connect, we play head to head. We can do that.

Or I can be a friend and maybe we create a game room and figure out through one of the Yahoo! widgets when we are going to actually put our game room together, create a league, have a clan, whatever that might be. We all become part of that. It is social.

N-Gage, very same thing. You have these wonderful devices that have these 3D accelerators that are coming on them, like I said, PS2 quality level gaming. The user interface needs to tie you in to how to get the game. So, let me just give you a quick sample of what that might look like on this new nirvana I am talking about.

MS. YODAIKEN: I think you have a demo slide for the people who are on the --

MR. ELLIOTT: So, for those who are on the webcast, there is the slide there. So, this is the main N-Gage play

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application. Essentially what this is it is my gaming hub.

So, fundamentally, anything that I have related to my games I can go to from here. This is my home page and it just gives me a quick snapshot. Here is the game that I last had played.

Here is my general progress in the N-Gage community. So, you will see I have N-Gage points, I only have a reputation of only four or five stars, somebody has not rated me very highly, and I only have eight friends. Here are my friends.

If I want to go in and maybe ping them a note and say, hey, do you want to go play or whatever, I can do that.

A nice feature that I think that has been very well-thought out here. It is very simple, but nice. It is called the feature game.

So, the ability for us to try to generate higher attach rates is in here through this feature game concept.

Here is my complete library of all my games, which is kind of hard to do. I mean, at one level, it is actually very nice. So, here is all the -- now I can keep track of all my games. I play a lot, maybe more than I should. We would like to see people get to the point where they have eight games in their mobile phone, playing these types of games and that would be wonderful. This is a great way for us to show people how they can manage it. Then, ultimately,

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if I go over here to the far right, which is the show room, this is where every single game that has ever been done for this platform is going to be. So, as we go in in time, you can see that today when consumers go through a WAP deck or on portal, it is extremely difficult to find all this stuff.

Not only that, but if you look at this, if I go into this game --

MS. YODAIKEN: Just to clarify, when you say people going on a WAP deck or on portal you are talking about --

MR. ELLIOTT: It could be a couple of different ways. One would be the operator's deck or any web link that might be made available through the device that somebody can connect to. It could be a publisher, like EA, GameLove, THQ, et cetera, that have mobile games that they provide. They might have a WAP deck as well, too, that perhaps the operator was gracious enough to connect them to. Or they may -- it could be some other promotional way of actually seeing that deck in that content as well, too. But that is how I would generally characterize it, rightly or wrongly.

The other thing that I want to just point out here is that on this show room, you can actually go in and look and find out a little bit more about the game, what type of game it is. So, that was one of the other things, people

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just do not know what kind of game they are getting. So, this is a way for us to provide them more information.

Then this tab does not have it, but this media page in particular is nice to see. I will try to go back to another one. This is just basic images about it, so you can get a look at it before you even download.

So, if I go to another game in here, you see this reviews tab. So, here, now I can see how other people that are part of this community are now ranking the games. So, you can begin to see how this overall, just in summary, is a way for us to help increase people's desire, propensity to have more fun. We can show them where to get more content, we can help them make decisions about whether they want that game or not. If it is not a very good game then that is the way it should work, but if it is a great game then we want to make sure that everyone has an opportunity to get as much exposure to it as possible. Thank you.

(Applause.)

MS. YODAIKEN: Thank you very much. Okay. Next we have Rich Miner who is Group Manager of Mobile Platforms for Google.

MR. MINER: Good morning, thank you. I have a lot of slides, but there is really just two things that I hope that you walk away from this panel, from my talk, thinking

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about today. One of them is all of the phones that you see here from the fellow panelists, the one I have in my hand and the ones that many of you have in the audience are about as powerful as a desktop PC. That is an important thing to understand.

Basically, this Android based phone is just about as powerful as a PC was in 2002, from a memory standpoint, processing standpoint, and also with 3G and soon 4G networks, from a broadband data connectivity standpoint. So, that is point number one. Phones are as powerful as desktop PCs and with the keyboards and touch screen, they are getting as interactive as today's PCs.

Point number two is that openness is a good thing.

And many people will try and say that openness is bad and not secure and not good for consumers, but I think that we have seen from the Internet, we have seen from what happened when we put Linux in the enterprise that it turns out that openness is not all that scary, it ends up being good for consumers, good for consumer choice and good for innovation because you do not have any one party controlling. So, those are the two things that we should think about, and now, let's see if we can sift through some slides that try and reinforce some of those points and also talk a little bit about what Google is doing in this space with these two principles that

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I just mentioned.

So, last year in November, we announced an operating system, a complete platform, in fact, that included operating system applications and a whole stack called Android for mobile phones. The goal was to provide a very powerful desktop-like experience for the mobile phone including great web browser, great data connectivity and, of course, a great phone, and deliver all of that as an open source product.

We also announced an open handset alliance, a group of partners from the industry, both the software industry as well as the mobile phone industry, who we were working with to help us build that open handset platform. Then because like any platform just like in the PC and as we have seen from examples to kick start and have a platform be successful, you want to have lots of content available, lots of applications, business applications, games, what have you.

So, we also released a very powerful software development kit to allow software developers to build applications. And as a little added kick to the software developers, we announced \$10 million worth of cash prizes for a competition that we are just finishing up the first round of to award to people who are building compelling and interesting applications out in the community.

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So, Android, as I mentioned, is this open source software platform. It encompasses everything that you need to build a very competitive smartphone today. I will not bore you with all of the architectural details, but suffice it so say, it is a very large amount of software. When Google actually open sources all of that source code, it will probably be one of the largest contributions of open source source code that Google and our partners will be contributing at any one time. So, that is one thing that is very important to understand.

Also, it is not just this platform, but we are working with a number of large OEMs to make sure that this software platform gets out into the industry in lots of different handsets and lots of different shapes and sizes and form factors. So, I think as we said in the press, this is not about a Google phone, it is really about kick starting the industry with an open platform and lots of phones that can have different branding and configurations and also then a go-to-market strategy alongside of that platform.

The alliance that we announced has a large number of partners, as I mentioned. They include everybody involved in getting handsets out to consumers, the people building the chips, companies building the software that goes into those phones and, again, there is lots of different software,

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there is Linux as an OS, there is video codex that decodes the video so you can see your streaming video. There are mini sequencers so you can have colorful ringtones on your phone. All of those layers of software. There is a web browser, of course, that you want to have in your phone.

We then also have OEMs like Motorola, Samsung, LG, HTC that are working with us, a number of mobile operators, T-Mobile, Sprint and others around the world, and then content and service providers who are also working with us. All of them have been committed to getting the handset out.

So, why would Google be doing something as ambitious as this open handset platform? Why is it strategically important to Google? Our mission, as I think many of you may know, is to organize the world's information and to make it universally accessible and useful. It turns out if you look at the number of people who are connected to the internet online, there is just about a billion users connected worldwide. There is approaching three billion users worldwide who have mobile phones. So, almost a three to one scale in terms of the people walking around with mobile phones versus those that have PCs or desktops.

It turns out in many parts of the world, while we here in the U.S., often we call ourselves a two-screen economy. I have my desktop screen and my phone screen. In

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many parts of the world, this is it. They are going to be a one-screen economy. That is the only device they have to get themselves connected to information. So, if we are going to try and organize the world's information and make it universally accessible, then maybe it is important for us to be able to reach those 2.7 billion mobile phone users worldwide.

To put this number into perspective, 2.7 billion, that is more than the number of televisions that there are worldwide, that is more than the number of credit cards that are issued worldwide, landline phones, internet users, and they dwarf other consumer numbers, automobiles, et cetera, that you start to think about.

Every single year, there is about 200 million PCs sold, there is about a billion new mobile phones sold every year. People only hold on to their phones about every 18 months and, again, that means that these new capabilities and very powerful phones are ending up in everybody's hands within the next year or two. So, even if you think you have an old phone today, I guarantee you that the next phone that you buy within the next two years will be as powerful as that desktop.

One of the things that is happening is if we remember back to the PC world -- and, by the way, the mobile

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phone space is no different than the PC world. I am old enough to remember when there were a whole bunch of mobile phone OSs, before there was just one or two controlling a large percentage of the market. And the mobile phone space is the same.

One of the things that is happening in the mobile phone space that also happened in the PC world is that the hardware started to go down really quickly after the IBM PC came out. So, you had Micron making these very low cost motherboards and there were very low cost PCs. The exact same thing is happening in the mobile phone space. So, one of the questions is, well, why are not consumers seeing the benefit of these dropping hardware costs? Because if you look at the software cost in a mobile phone, people are charging more and more for the software this goes into every single phone, not great for consumers. It is another reason why we are open sourcing all of Android, so that what you see in this chart is the software approaching 20 to 25 percent of the cost of a handset, will go down significantly and help overall handset costs go down.

So, we have already said the handsets are very powerful. One of the problems though is that none of us really think of our mobile phones like we think of our PC.

If I were to ask people to raise their hands who was surfing

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the web on their mobile phone today, I guarantee you it would be a relatively small percentage of the people in the room.

There is a number of reasons for this. But one of the reasons is that we have not really treated these devices like open PCs. And there are other reasons. There are small screens, there are small key boards. So, there is definitely some innovation we need to do to get over those constraints. But we also just have to think about how we open these platforms up to enable people to get any application they want, reach any service, launch a web browser, go to any website that they want.

So, one of our goals has been to promote openness in the industry. That is one of the reasons that we launched the Android project and have done several other initiatives that I am sure you have all heard about. This message of openness we are happy to say is resonating very nicely through the industry. There has been hopefully not just PR campaigns between the Verizons and the AT&Ts, almost wanting to position themselves as being more open from a device perspective than their competitor. We also think it is just important to enable people to get to Google anywhere, any time, and as we mentioned, also help reduce the cost of phones.

One of the challenges is that this is scary to the incumbent phone operators. It is not an issue of what can

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be done, it is an issue of if it is all open, how do I make money. So, one of the things that Google is helping people understand is just like in the internet, there are ways for people to make money from open platforms, open networks, advertising being one of them. We can help people, as they open up their networks, contextually and relevantly display ads to generate some revenue from it.

I mentioned that there are some problems that are preventing these devices from being used like PCs. Of course, one of them is, again, the screen size and the input.

But if you have played with an iPhone, if you have a BlackBerry, they have keyboards. We are coming up with better ways to use touch. Most of the phones are coming up with much larger screens almost with the same resolution that the PC had when it started to take off.

A key issue is lack of openness from the networks and the platforms, and then also the business models. And from a business model standpoint, again, I will not go into the details here, but I will tell you if you are a software developer, it is nearly impossible to get your application on a handset today. There are complex signing procedures that the carriers make you go through or the handset manufacturers make you go through. Consumers cannot see an app and just decide to put that app on their phone. There

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are barriers that prevent them from doing that.

Even if you thought you could get the app that it was compelling to get on a phone, you have to do something that I typically call sales and marketing to try and convince a carrier to put it on the phone. I think you guys call it lobbying. But the point is you have to go to the carrier and try and convince them, please put this application on your handset.

The world that Google is familiar with is that anybody that takes a video of their cat playing with a ball of yarn can upload that video to YouTube. Why shouldn't it be just so easy that anybody who develops a compelling application should be able to upload their application so that consumers can find that application?

So, there is closed platforms, it is difficult for people to do the things I just mentioned. The enablers are not really there from a billing perspective and to help people do these things. Again, additional reasons as to why Google has been pushing and evangelizing and will launch the Android platform.

So, the goal is to help clean up some of this confusion, to have a broader platform that we can launch that is truly open unlike any of the varied platforms that are in the industry today. I think one key point that I want

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to make sure we touch on is that when someone controls a platform, it stifles innovation. Again, I think we have seen this in other industries and we can probably look to our desktops. If you control a platform, then it is hard for people to compete with other word processors, with other project management software.

One of the goals with Android is that Google does not mind having open platforms and competing based on our own strengths. We just want a level playing field. We do not like it if somebody controls the entire stack and the entire platform and it puts us or especially that small software start-up at a disadvantage because they cannot compete as easily as they could if the platforms were more open and they were not at some competitive disadvantage.

So, the goal is to open things up. Android is one of several examples where we have tried to do that. The goal is to have a positive impact, solve the ergonomic issue to make these devices a little bit easier, help there be great keyboards, larger screens, innovate with touch. Develop a large third party development community so that it is easy for consumers just like you find that video on YouTube, you should be able to go somewhere and find that application that gives you the bus map of D.C. so you can find your bus, and then encourage openness which, again, we are happy that we

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are starting to see that message of openness resonate through the industry.

This is an example of kind of using Google mobile maps to search for a pizza restaurant. Real easy to do. One thing I will note is you will actually -- perhaps you can see here that there is an add as contact. So, I searched for a address, I found it, I found the pizza place, one click I add it to my address book. I can now call that pizza restaurant. That is a very simple type of integration you can do in Android.

It turns out Google has done many other great things in mobile. We have a Google mobile maps application that most of you can download to your phones today. Try and do this on your phone today. Search for a pizza place and then try and save that address in your address book. This is part of the closed nature of today's phones. It turns out the address book in most phones today is a separate environment from the environment Google has to deliver to the consumer a maps application. Consumers do not understand that. All they see is I have an address here, I could map it, why can't I map an address that is in my address book or move an address from my address book to my maps. It is very confusing to consumers.

With the Android platform, the goal is to sort of

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open all of these services up, allow any developer to access those capabilities and to deliver to consumers a much more seamless experience, very similar to the type of experience that they are used to on the web today. No technical reason why we cannot do that, we just need the platform and we need the view on openness that supports that. And there we go.

MS. YODAIKEN: Good. Thank you very much.

(Applause.)

MS. YODAIKEN: We are going to open this up again to questions from the audience. Again, if you can go to the mics in the back if you have questions, if you cannot reach the mics, just write it on a question card and there is somebody walking around collecting them. And if you are watching from the webcast, you can send an email to beyondvoice@ftc.gov.

I wanted to just start off with a general question I guess to all of you about interoperability and some of these issues that have been raised. Rich, in particular, you were talking about this, but they have also come up in the other presentations, Steve, of course. This idea of what is going on there to help consumers understand if they do download something that there may be issues about whether they can use it on their phone or that they need something else to help them, in terms of right now. So, it is a broad question.

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MR. BOOM: Well, right now, the way it works typically at Yahoo! is if you go to our PC website, mobile.yahoo.com, you can enter in your phone number, we will send you a text link, an SMS, and when you click on the link in there, we will then tell you what is available for your phone. So, when you click on that link, we can now recognize what type of phone you are on and we will just say, look, here are the following ways that you can access Yahoo!. Similar if you just go to the browser home page, m.yahoo.com, we would not promote, for example, the Yahoo! Go app that I just showed unless we knew it was available for your phone. So, it is pretty straightforward today I think.

MS. YODAIKEN: Anybody else have anything to say on that in terms of consumers understanding what will actually work on their phone or what they need to do to make that work on their phone?

MR. ELLIOTT: Actually, I think over time, it will be kind of a moot point. At least I think that is what all of us up here would want to say, because if you go out it is just like a PC, right. A PC connects to a webpage and everyone has access to the webpage. The phone should be in a similar situation. So, that is I think where the state of the industry will be overall.

Here, now, today, I think the operators actually

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do a very good job of trying to ensure that that is why we have -- not we, that is why things are Java verified, et cetera, et cetera, and our operators have that to make sure that the consumer experience is incredibly interoperable, you are not going to have any issues. And then I think each one of us will point to different things on the websites, Yahoo!, there at least for us in Nokia, we have things on the device that allow people to get more content or allow them to try out more content. But things that do not work, we will tell them it will not work.

MS. YODAIKEN: Rich, you wanted to add something?

MR. MINER: I mean, I just think actually the situation today is not great for consumers. I think, again, the content that they will see their friend had from their Sprint phone is going to be different than the apps that they have on their Verizon or T-Mobile or AT&T phone. Oftentimes, because of this thing known as fragmentation, which causes, even if a program says it is a Java standard application, turns out different implementations of Java are different than each other and that causes this problem known in the industry as fragmentation, and it means even if you see an app written in Java for one phone and you know your phone has Java, there is a chance that it might not run on your phone or it might run differently or have some issues.

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So, one of the problems is today there are not great platforms.

Now, the good news is Opera, iPhone, our platform, they are putting standard browsers and high-powered browsers in a lot of phones. So, web content, for a little while, may be the common content that at least everybody can get to in web-based applications.

MR. FORD: And I would say that I think that is -- to part of that point, that is why we chose to write Opera Mini as a Java application. But, also, to Rich's point, we do see that implementations vary, so we have a fairly sophisticated tool on our site that will help determine the right type of Opera Mini to download to your phone. But, in many cases, you know, it comes down to a point, particularly in the U.S. still, not as much as we see in Europe, but in the U.S. it still comes down to us doing a lot of manual testing to make sure that implementations of Java, that we can at least accommodate that.

MS. YODAIKEN: Do we have a question in the back? Can you just identify yourself?

MR. CHAPPELLE: Sure. I am Alan Chappelle. I think this primarily goes out to Rich over at Google, but I think to the whole panel. I am a huge fan of the concept of open for many of the reasons that we have discussed. But

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one of the ramifications of open that I do not know if it has received enough attention is the concept of the level of security that a carrier brings to that ecosystem. So, I often analogize the carrier to kind of the Boss Tweed of the wireless ecosystem. I do not know if we have any New Yorkers in the house. But the idea that Boss Tweed took 30 cents on the dollar with everything that ran through New York City in the late 19th Century, but roads got built, buildings got built, and relatively speaking, there was some safety.

So, the thought is the carrier starts to lose control over that ecosystem, what are the security ramifications and how does that harm potentially consumers?

I can think of two general ways. One is that the same folks who brought spam and spyware on to our PCs are coming into this space and in a huge way over the next six to 18 months.

But even leaving aside kind of the evildoers of the world, I think that one of the things that the carriers do is kind of in deciding who is going to be on the mobile device, you kind of eliminate situations where, for example, there is a mobile media company that has a great value proposition, they send you three coupons a day and they are really cool coupons and they are really valuable to you, and

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very few people in this room would think that that is a bad thing.

But what happens, this is like the Academy Awards, they are playing the music.

(Laughter.)

MR. CHAPPELLE: But what happens when you have ten of those devices on your mobile phone? Now, you are not getting three pop-up like messages but you're getting 30 or 40. Any thoughts on this?

MS. YODAIKEN: Okay.

MR. MINER: I get it, yeah, sure. So, again first of all, remember Google views the phone in the same way we view PCs. Now, I think across the industry, not just the mobile phones but in PCs, the developers and the deliverers of platform should take more responsibility to help make those platforms more secure. So, I think that is point number one.

Point number two, ask any security analyst. Building really huge walls and fortresses and thinking that is going to keep people out is a false sense of security because the higher the wall, the easier it is for them to find a crack, to find a place to go around or under.

So, I think the key thing is that you need to take responsibility to build security models into your platforms

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and not try and restrict the content to 1/100th of a content that a consumer can get, but put some good security procedures and policies into the platforms themselves and let consumers have any content.

Then, say with the case of Android, if a consumer downloads a Sudoku program where they are just going to solve a Sudoku puzzle or a crossword puzzle, what happens is when you download an app, the app actually in the system tells you what services in the phone that app is going to be using.

So, if you download this crossword puzzle app and it says it is going to be accessing your address book, making phone calls and sending SMSs, the consumer is going to have a chance to say, well, wait, why should it be doing that, I am going to uninstall or not finish installing this application.

So, I think the best thing is to say not opening things up and saying that it will bring mayhem is, again, the same thing we heard in the enterprise space relative to Linux. Now, you have IBM, Oracle, all the big players delivering very big secure systems in the Linux space. Same thing in the mobile phone side. You can open things up and build smarter systems that have some of that security built in.

MR. CHAPPELLE: That is not what I was saying. What I was saying is I guess I am encouraging the industry to start

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developing some of these notice and choice regimes now.

MS. YODAIKEN: So, I am also going to let you know that tomorrow afternoon there is a panel on security in mobile. And, so, hopefully, some of these ideas can be fleshed out there.

Let me see if anybody else has anything that they want to add to what Rich said. Otherwise, we will move on to some questions that we have gotten. I am going to kind of combine some and it is related to the question that was raised, which is the question about privacy and the information that is utilized in order to do some of these applications.

So, Rich, you just gave us an example where there is kind of a cross check where the consumer is saying, okay, yes, I want this application to be able to utilize this information already on my phone. I wonder if each of you can speak a little to the type of information that is used by some of these services, these new services and what checks are in there so that consumers understand what is going on.

And, Thomas, maybe you can start us off because we had talked a little bit about the browsers and what information is conveyed when somebody is browsing on a mobile phone.

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MR. FORD: Sure. So, first, I think partly in response to the first question, I think part of the onus still has to go on the application developers for building security into their products to protect consumers as well. So, you know, Opera Mini, because there is a server that sits in between the client on the handset and the web itself, there is definitely a privacy issue that is raised. I think the way we solve that is by having some very, very rigid security both from the handset to the server and then from the server to the internet and then back through it.

So, we use 2048 bit encryption. Very, very rigorous. There is also rapid -- I think every five seconds we switch RSA keys and things like that. So, it is very, very secure from that perspective. And then to notify the consumer when they go to a secure site. In Opera Mini you will see a padlock on that to give you a visual verification so you know that it is secure. You can enter personal information. You know that it is not going to be accessed or viewable by someone else.

MS. YODAIKEN: So, we are not just talking about secure information, but we are talking about, also, if the consumer goes to a website on their mobile device, there is certain information that has to be conveyed in order for the device to read that.

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MR. FORD: That is right. So, in that case, that is still encrypted. There is still -- well, not entirely encrypted, but we are not able to see specifically which site each individual is able to view. So, I cannot say that Ruth using Opera Mini just looked at the FTC site.

MS. YODAIKEN: And can the FTC site tell that I was there?

MR. FORD: Yes. It can tell that someone using Opera Mini was there.

MR. BOOM: Yeah, I would say when somebody accesses Yahoo! on a browser, on a mobile phone, we receive an identifier for that phone, but it is not tied to the person's actual ID. It is an anonymous unique code so that we can recognize that person when he or she comes back. Until the user logs in, which is obviously totally a voluntary procedure -- when they register on Yahoo!, as you know, they are then prompted to give certain types of information.

But just by visiting our site, we do not know anything regarding the identity of the user, and as I described before, on GPS enabled devices, users are asked whether they want to make that information known to Yahoo!.

If they do not, then they do not get access to location-based services in the same way. So, there is a clear benefit to giving that information.

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MS. YODAIKEN: Did you want to add anything?

MR. ELLIOTT: I do not know if I am adding anything, but I will make a comment here.

MS. YODAIKEN: Subtract, whatever.

MR. ELLIOTT: You can look at any one of these issues there is two coins or two sides or maybe more sides, but on the one hand we do want to capture some of that information. Let's be honest. From a customer care perspective, it is very, very important to know quickly what that consumer has, if they hit our site, when they came in, what is the device, what is your IMEI, what network are you on. We can troubleshoot these things a lot faster. So, there is a care side of that that is important to capture this type of information.

On the other side is they are coming and using these services. There are legitimate privacy issues that you have to contend with here. But we try to make sure that we have people -- well, we do make sure that when people come to these services, they can opt in to take them or not. And, so, I think Nokia is very rigorous about this and I think any one of these companies are going to be very rigorous about that.

I mean, a big brand name cannot afford to have a privacy lawsuit on their hands. So, on some level, they may be held to a higher standard, but it is somebody that is not as big,

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somebody that is not as thoughtful about that where you will run into the issue.

MS. YODAIKEN: Okay, we have a question.

MR. CHESTER: Yeah, I did submit a question. But, Steve, tell me about the widgets. As the user is going on the Yahoo! mobile services, including the widgets and downloading the various applications, what data is being collected about them, what data is being shared to the advertisers, for example? Can you walk us through the data collection that goes on on the Yahoo! mobile applications?

MR. BOOM: Sure. So, when a user is using a Yahoo! service like we do in a browser, we collect that person's click stream so we know obviously when you click on a link on Yahoo! that gets logged in a server. If I am using a widget that I just showed to you, we know what links the user is clicking on and we know what searches they do and we have publicly talked about our anonymization of search data after 13 months. It is very similar to what is on the PC. It is actually not materially different about how it works, especially the browser works basically the same way.

MR. CHESTER: So, the business models for the broadband to PC world or the PC interactive advertising world are similar, in a way, to how the mobile system is evolving, would that be correct?

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MR. BOOM: Yeah. Is this a cross examination?
I'm sorry.

(Laughter.)

MR. CHESTER: No, I just wanted to see if you would characterize it that way, if it was right.

MR. BOOM: Yeah, of course.

MR. CHESTER: I think most people do not understand that.

MR. BOOM: We just talked about that we want the internet to be open on the mobile phone. So, yeah, it is very similar in many ways.

MR. CHESTER: Thank you.

MS. YODAIKEN: Well, thank you all. Thanks to all of our panelists. We have a break now for lunch and we are reconvening with a session that is focusing on location-based services linked to where you are. That starts at 1:45. Please take your tags with you.

(Applause.)