

JOHN PATRICK:

Well, thank you very much. Great to be here and be part of this meeting. It's been just a terrific couple of days. I'm going to start off with a sound check.

Oh, I could just listen to that for the rest of the morning, rest of the day. Knowing what a tech savvy audience you are, I suspect by now that you have all taken your CD collection, as I've done, and converted it to a digital CD collection.

I wouldn't be surprised if you have servers in your basements at home with thousands of tracks of this digital music. You probably have touch pads in every room of your house where you can just walk up and pick the genre or occasion or the composer or the artist and select this beautiful music that's piped throughout your home.

But if you haven't had time to do that yet, or possibly if you're not exactly sure how to do that, would you please talk to your children.

Because as you know, the kids hold so many of the clues to the future of the Internet. And that's what I'd like to talk to you about: where is this all going?

And I'm going to start with the big picture and the big picture is that we haven't seen anything yet. We're about two percent of the way into this. Last year, for those who were here, you may recall I said we were five percent of the way into it. I'm revising my estimates downward.

Now the number of people has grown a lot. In fact, as you've heard others say, it's somewhere around half a billion people. Soon it will be a billion people. The traffic, the Web sites, all the metrics of that nature are increasing dramatically. The Internet is doubling roughly every eight months.

However, when you look at the percentage of the available speed, the available bandwidth used by the average person, it's about two percent. When you look at the number of devices we carry around that could be connected to the Internet, how many are there? About two percent. And the metrics go on.

But the most important one from my perspective, and I think from your perspective as well, is that the percentage of things you can do on the Internet that would simplify your life, would make things easier -- how many of those things which could be done are actually able to be done? How many of them? I'd say it's about two percent. And that's really the issue at hand that I'd like to talk some more about.

Now, although we're at the very beginning, this is very profound. This is one of those things that happens every hundred years or so that not only changes everything, but that empowers people. Power to the people is what this is about.

Now, I am not talking about Tiananmen Square. I'm not talking about people marching in the streets or anarchy. I'm talking about the power of the click of a mouse, or a PDA where our customers signal what they want and when they

want it and how they want it and the terms of business under which they want to operate. That's what the Internet is enabling ... is this empowerment.

I believe that there is a gap forming. Expectations are expanding by the day. Every day we see something new you can do on the Internet. We say, wow, gee that's really slick that you can do that.

And then we start to think about well, why is it that I have to fax this form? Or, why is it that I have this procedure that's not online? And it starts to not make sense. And so we have this gap forming between what people expect and what they get from these e-businesses.

And I believe that gap is getting bigger, not smaller. So how do we close this gap? And I believe there are two parts to the answer. One part has to do with the next generation of the Internet -- which I'll have a bit more to say about -- soon to make today's Internet seem primitive.

And the other part of it has to do with attitude. How do we think about this? How do we think about this idea of power to the people? How do we think about the role of e-business? Do we think about it as, oh, it's just another channel? Or do we think of it in a strategic way?

Now let's begin by taking a closer look at this idea of this power of the click. What is it that people are actually looking for? Well, I believe they're looking for

end-to-end solutions.

So, for example, if you're a small business, you may look to MyUPS.com. They have really thought it through, end to end. You've heard a number of speakers use this term, end to end. What does that mean?

It means thinking through not just "click here to buy", or "click here to do this", or "click here to do that", but rather to incorporate all of the aspects -- in this case, shipping.

So, on this site you can store all of the addresses of your customers. When it's time to ship something, you just call it up, enter the weight automatically from a digital scale, print out a bar-coded, authenticated address label, put it on the package.

The driver comes to deliver other things, takes the package with him, it's end to end. I think that's what people are looking for. Unfortunately, that's not always what they find.

Let's take a look at the Olympic Web site. Not of 1984, not 1990, but the games that just finished. Let's go to the official merchandise site to buy some clothing online. Here's the Web site.

Step one: print an order form to help you calculate your order.

Step two: select your favorite items, write down the style number, size and color on your order form. Step three: call this 1-800 number. Of course, this is a global Internet, they're global games, 1-800 numbers are in the US only.

And I have a hunch that if you had called on a Sunday evening, you probably would have gotten a recording that said, "Please call back during our normal business hours of 9 to 5, Monday through Friday."

Now, this is becoming, I believe, quite a significant issue -- this concept of 9 to 5, Monday to Friday. Even the great e-businesses of the world are struggling with, what does it mean to be open? What does it mean to be open?

A lot of the basic tenets of business are being challenged now because of the network. Now on Sunday evening, I don't know about you, but it seems like for some reason Sunday evening is a time when maybe there's a few minutes to catch up and do a few things.

And I had received this e-mail from a friend saying, "Hey, you ought to look into this cruise that's being offered at American Express." So, I was kind of interested, actually, and I went to the site and I was reading this and I saw this big button here, it says, "Purchase now. Call the interactive phone sales center at this 800 number." So I clicked on it and here's what came up.

Now let me ask you, what does it mean to a teenager, the words 9 to 5, Monday to Friday? That means nothing to them. Nothing. It just doesn't compute to them. It's a meaningless term.

And yes, most e-businesses -- somewhere on that site you're going to run into these words, "We're closed." So we have to rethink: what does it mean to be open? What does it mean to be closed?

Now here's a deeper look at this. This is a travel site of a very, very large company. And it tells, I think, some important lessons.

Number one, it says, "Do you need help making a reservation online?" No problem. "If you need any help, we are here to help you, 9 to 5, Monday to Friday, Central Time." What does that mean in Vladivostok Central Time. Closed holidays. When do really busy people maybe have a little spare time to plan a trip? Holidays.

Now look at the middle part of this Web site. It says, "If you have any issues outside the scope of the online reservation system, no problem; just contact us through our e-mail system." I want to certify to you that I scoured this Web site top to bottom; no e-mail address to be found.

What is the killer app of the Internet after all these decades that the Internet has been around? E-mail. Permission-based marketing through e-mail.

My experience has been most Web sites do not answer their e-mail. They just don't answer it. So this is a tremendous opportunity.

Number three, it says, "If you want to confirm a reservation, you can review or cancel reservations made on the Internet. For assistance with reservations made elsewhere, just call our toll free 800 number." They left off the 9 to 5, Monday to Friday.

Now, what they're really saying here in this third bullet is actually profound. What they're saying is we have two reservation systems. We have a paper, fax, phone-based system. We also have an online reservation system. And those two systems are built on different platforms, in different decades probably, and they do not communicate with each other.

You can go to the great hotel Web sites of the world and you can reserve a room online. Some of them are very slick. Try to pay for it with your frequent flyer points, which are also online at those same companies on a different Web site. You can't. Well, how do you pay for the room? You call.

And when you call, of course 9 to 5, Monday to Friday, what do they tell you? They say, "Just give us your credit card number and for \$35 we will overnight to you a copy of this coupon you're looking at on our other Web site, so you can carry it into the hotel to check in."

So, we have a ways to go here. The examples of this unfortunately run pretty wide and pretty deep and this is why I say we're only two percent of the way into it. It's not because of the technology. Frankly, the technology is way out in front of where we are with some of the very simplest, most basic things.

Here's a financial services company. They sent a letter to me about a particular administrative matter and I replied to their letter by e-mail from their site. It wasn't buying or selling securities; it was, indeed, a simple administrative matter.

And here's their reply. "We can't do that by e-mail. You have to speak to us. You have to talk to us. And this is the number and this is when we're open. And if you have any other questions, send us an e-mail."

Now, why do I make such a big deal about e-mail? The kids. Now, I think someone earlier made reference to the Pew Foundation. Does a lot of wonderful studies about the cultural aspects of the Internet. And they did a study about teenagers.

This most recent study, which was quoted earlier today -- I think Shelly mentioned it -- was about college students. But prior to that, there was a broader study about just kids in general.

Big surprise. This study said that teenagers use the Internet. And, in fact, 90-some percent of them prefer e-mail as their method of communication.

It is their preferred method of communication.

So, here's this multi-billion dollar company here saying, "Come to us. You have to talk to us." And there are 200 million kids out there saying, "We don't want to talk to you. We won't talk to you. We are not going to talk to you. We live on the Internet. In fact, we live on instant messaging."

"We get home from school and we get off at the bus and we make a beeline for the PC -- not to surf the Web; that was in the old days. We get our instant messaging sessions going." Abby was describing this just the other day.

And so they have their 15 chat sessions. Well, that's the way we live as teenagers. And so, if we want to relate to these hundreds of millions of constituents, we've got to get with it.

Now, I realize there are issues here about compliance and legalities and security and privacy; there are all kinds of issues. But frankly, they're mostly excuses. They're mostly attitude. And, of course, it is not a technical problem. It's, do you want to do it?

There was a power failure occurring at a company and I happened to be sitting with my ThinkPad which, of course, has a battery and it didn't fail, so I sent an e-mail to this company. I said, "We're out of power here."

I got an e-mail a few days later, saying that if you don't have power, you've got to call. E-mail is only manned during business hours. So this is really deeply inculcated into our culture, into our minds -- that 9 to 5, Monday to Friday. I mean, that's when we're supposed to be open.

I bought a small appliance on this Web site ... well, actually, I tried to. I found this particular small appliance and it was referred by a friend of mine and it was exactly what I was looking for and I was ready to click here to buy.

And they said, "If you want to buy one of these, feel free to call." Well, I really did want this particular item, so I did call. At 5:30 p.m. And I got a message that said, "We're closed. Call back tomorrow."

Now, I had a subsequent conversation with this company. I just really ... I was trying to help them.

And they said, "You don't understand. We make this product, but we don't market this."

"We have dealers and we would be happy to have you call back 9 to 5, Monday to Friday, so that we can give you the name of a dealer somewhere near you." (... who is probably also open 9 to 5, Monday to Friday.) And I tried to explain, "But I want to buy this!"

So, if we're going to worry about the channels of distribution to the point that we just close off this communication with the customer, I don't know, maybe we have to rethink that.

Now, channel issues, again, are not to be minimized. They are very significant issues. But I'm not sure this is quite the way to deal with it.

There's a major bus company which does a terrific job. They have a lot of things online -- except "For limited-service bus stop locations or information to purchase tickets, please call this 800 number."

There's a retailing giant. "Visit our gift registry." I said, "Hey this is pretty cool." I've been predicting for years that eventually somebody would have an online gift registry. And this giant has one and I clicked on it. "Gift registry is currently not available. Please visit a store near you."

There's their competitor, another giant in the industry. "We offer gift certificates too ... and registry purchasing online." Get this one. When I clicked, "You would need to contact the store where you are wanting to get the gift certificate from. We currently do not offer to purchase gift certificates online. If you have any other questions and want to give us some feedback, please send us an e-mail."

Now I'm not going to comment on the grammar of this.

But, you know, I've been reflecting lately about the discussions for CEOs. CEOs, it's now been determined, should certify the financial statements of their companies.

I wonder if CMOs should certify the content of their Web sites? Who read this? This is delegation, right? So, a lot of the future of the Internet is technology -- and I'm going to talk about it in a second -- but a lot of it is the way we think about this.

Who is using these Web sites? This is not a fly-by-night outfit. This is a multi-billion dollar famous company. And look at this, the grammar of this and the concept here behind this. What are they thinking?

So, I recommend, get some kids. Get some college students and ask them to scour your Web site and find out all the things you can't do. And then you can prioritize that list and do the ones that are easiest or least costly or however you want to prioritize it, but attack that list, because it's becoming so obvious to people. Their expectations are so high -- when they see something like this, they go, "Oh, geez, will they ever get it?"

There's a major telephone company. They just put out a really spiffy new pricing plan and you can order online. So I clicked. Here we go again: 9 to 5, Monday to Friday, 800 number.

Here's a manufacturing company, business-to-business environment. They've got this down pretty good. You can order by phone, you can order online, you can order by e-mail.

I ordered something from them and I got an e-mail and they said, "Thanks. Your order has been saved, your shopping chart is empty. If you want to check on the status of it, give us a call." Give us a call. And I hope they would be open.

So, we have a long way to go here, I guess, is the bottom line. It's not a technology issue. But certainly the technology can help. Speaking of technology, I accidentally hit the wrong button there and branched to the end.

So, now let's move on to this notion of e-business. I feel compelled to make a comment about the bubble. Having lived and been in the bubble and part of the bubble for a long, long time, I think we have to put this in perspective.

Certainly, the market capitalization bubble broke. A lot of great people lost their jobs in California and other parts of the world. So I don't make little of this.

But, on the other hand, to think through this, how many businesses go bankrupt in America? About 5,000 a month. Business bankruptcies, every month, pretty steady for 20 years.

How many dot-coms failed? One thousand. One thousand. Now, a thousand is not trivial over a period of three years; but compared to 5,000 a month of total bankruptcies, it sort of is a small matter.

The point is, those bankruptcies didn't really have anything to do with the Internet. When Pets.com offers you a 30-pound bag of dog food and they're going to ship it from California to New York -- if you pay the shipping, you're not going to be happy. If they pay the shipping, they're not going to be happy.

How do they make money under that business model? They don't. That's why they failed. It didn't have anything to do with the Internet; it had to do with the basics -- segmenting your market and understanding the needs and wants of your customers.

Setting prices that makes sense. Having a cost that's less than the price. Having great customer service and having terrific distribution. You do those five things, you make money. If you don't do those five things, you lose money. It's really that simple.

So, we are going to have millions of e-businesses. Not being an e-business, of course, is like not having a fax machine. But it's not enough to say you're an e-business. It's not enough to have a Web site. It is not enough to have e-commerce. The expectations that we all have are so much higher.

Now in addition to the attitude, there's some great technology coming along that's going to make this job easier. It's called the next generation of the Internet. And I'm going just hit the wave tops of these seven characteristics to give you a glimpse as to where I see this going.

Let's start with the speed. We are going to be awash in bandwidth. Now, you may be wondering: where does he live?

-- because it's never going to be fast where I live. And I do hear that around the world. But I can tell you now at last, I can certify to you, that the competition is underway.

The cable companies, telephone companies, wireless companies, power grid companies, satellite companies do see each other as competitors. And they are now racing to offer broadband services. And the pace is really picking up and I expect to see prices decline and speeds increase over the next year.

So, the speed is going to be there. The backbone of the Internet -- which a lot of people worry about -- don't worry about that. It's going to be so fast that it will not be an issue. It's all being converted to fiber optic. There are like a hundred million miles of fiber optic cable under the oceans and in the ground around the world.

It is not an issue that people worried about. "Oh, if we commit ourselves to e-business, maybe we're going to be dependent on this flaky thing and maybe it's

going to break.” It's not going to break, and it's not going to fall apart.

I can add to that, by the way, that right here, not far from this building, on September 11th a year ago, a major hub of the Internet was obliterated; but nobody knew, because the design of the Internet is such that the traffic goes through what we call routers.

They're special-purpose computers that just move all the zeros and ones from Point A to Point B to Point C. It's a concept that was designed in the 1950s during the Cold War. And the concept works. It protects against a breakdown of the overall communications.

Now, the bottlenecks are going to move around. The bottleneck up until now has been with the PC. That bottleneck is now moving back to the server. And you heard some great examples just now by Ezra and Ralph about what can happen in a peak load capability. So we're all going to need really, really powerful servers. And, of course, IBM likes this part of the problem.

Now, lastly, the content is going to be closer to us than we think. It's not all back in a server somewhere. It's going to be widely distributed -- in particular, video content. Think of a training film, for example, that you might make for employees.

That training film is on a server, but it's also distributed out to wherever the

people are. So a hotel building such as this, or an office building or an apartment complex, will have in the basement a server that captures information the night before from a satellite where it's broadcasted from above, captured in these servers and distributed locally.

Now, this will make it possible for video to become very much a part of the Internet. Today video on the Internet is kind of flaky, but the way we can begin to think of this is more like this. Not one channel; lots of channels at the same time.

Well, let's see here. I'm going to pick the channel I want to watch. And I click on it. Now I'm looking at a full screen. Now I kind of get interested in what I'm watching here and I grab my TV channel selector and I click on it.

And now what happens is I go to the Web page, right from the TV. Now I'm really hooked and the next thing you know, I've bought one of these things. And, of course, that's the whole idea. So this integration now is upon us.

Now let's move on to number two: Always on. This is more important, more powerful, more captivating, more compelling than the speed. The fact that you can just be on. You don't log on to the power grid to use your toaster -- unless maybe you're in California. Why do you have to log on to the Internet?

And our children and grandchildren, they won't understand this concept of what do you mean, "log on?" It's just shortly going to be as antiquated as "Ring me up

an operator so I can make a phone call.” Now, unfortunately, today most of the world uses this magical technology we call “the dialer.” It goes something like this.

At last I'm connected. I know that was music to the ears of many of you in this room. Well, it's a little slow, but at least now I can do my e-mail ... until I get disconnected. And that's kind of the world that we live in. I don't think any of us are going to miss it as we move to this world of being always on.

Now, in fact, we're going to begin to think of the Internet and the Web as two different things. Two different things. Most of us I think, generally, we think, “Well, the Internet, the Web ... I'm going to surf the Internet.”

Well, you don't surf the Internet. The Internet is the underlying communications mechanism. It delivers all the zeros and ones from Point A to Point B. That's the Internet. The Web is a special-purpose application using the Internet to enable us to surf around through Web pages as we all know.

But there are many other things that we could do with the Internet. For example, here's an application called “the Weather Box.” A colleague of mine, formerly over in England, invented this technology called the Weather Box. And Andy has on the roof of his house a couple of hundred dollars worth of Radio Shack weather equipment.

And it streams information through IBM middleware and servers and things out to people who want to subscribe to Andy's weather service. So if you want to know what's going on on the roof of Andy's house on the Isle of Wight off the coast of England, you can bring up this little application and you can monitor the weather on Andy's roof.

Now, you may not want to do that, but perhaps something a little more useful would be this application where you get in the car or on the train, you're on the way to work and you realize, "Oh, geez, I forgot to close the garage door."

You grab your cell phone, you connect over the Internet to your home -- which of course, is always on. You authenticate through the firewall which is there to protect against unwanted intrusion to your home. You check the "down" position on your phone, you click, down goes the garage door.

This is not rocket science to do this and we're going to see a lot of opportunities in this particular space. Imagine a pacemaker, for example. In fact, I think Lou or someone mentioned the notion of the pacemaker being connected to the Internet.

So, when dad's pacemaker test is run, if something is wrong, I get an e-mail now on my phone, not a letter in the mail saying the 90-day test was just completed.

So, we're going to see cases of monitoring of fuel lines, pipelines, water supplies.

And I'm not quite into the idea of my refrigerator sending me an e-mail saying, "I'm out of milk.", But, on the other hand, the ability to go over the Internet and close the doors ... the ability to go over the Internet and unlock the doors to allow a service technician to come in and fix the boiler or the heater ... these are pretty useful things.

And soon we will begin to think of our home as just an extension of the Internet through a local area network that we run in the home.

Now, one last little invention here. Andy, my colleague friend, is quite a prolific inventor actually. This is his latest invention. You may recognize this. It's a mousetrap -- connected, of course, to the Internet.

And when the mouse takes a bite of this cheese -- the yellow blob there to the lower right -- the red handle comes up, takes off the mouse's head and sends Andy an e-mail saying, "We caught one."

The current body count is 19. And, of course, Andy has always wanted to go down in history as having invented a better mousetrap.

Now, I have to tell you about this "always on." Something very profound is happening here. And it's called Wi-Fi. Now, some of you are familiar with the term and I don't want to get into this. The technology is as interesting as I think it is.

What's going on here with Wi-Fi is it's a wireless signal. And it's not for your cell phone; it's for your computer. Soon they'll be coming together, but think of this as a wireless local area network. We all know in our offices and our homes perhaps, we plug an Ethernet jack into the wall and that allows our PC to be able to share and print and do things around the office.

Well, now there's this wireless local area network. And it was invented for places that have difficulty in doing the wiring. They have a lot of brick and steel and it's expensive to retrofit and so on.

So, this is really taking off in a very much unexpected way. And recently I was reminded how profound this is.

I was in a Subway sandwich shop in a little town 60 miles exactly north of here. And I was having a sandwich and looking at my e-mail on my ThinkPad and I was getting ready to go and I got to thinking -- I just wonder if there's any chance that there might be a wireless local area network signal here at Subway.

And I was reminded of it because I had just come from a conference in Phoenix where I learned about this new software called Boingo. And Boingo can sniff out these wireless local area network signals.

So I started up Boingo and boing, up pops this strong signal indication on my ThinkPad. I go, "Wow! Nah, it must be a microwave oven." I brought up my

browser and up comes the Wall Street Journal. So I said, "No, it must be the page from yesterday." And I started clicking around. "No, this is live!"

And then I tunneled into IBM and got my e-mail (even though I retired from IBM last year I still have my e-mail there) and I started some chat sessions with some of my children and I'm having a good old time. I get another soda and put up my feet and I'm online surfing around the Web.

Then I started thinking. Where is this signal coming from? I mean, where is this? Does Subway have Wi-Fi? "You guys have Wi-Fi here?" "Oh, yes, sure. Do you want it on white or rye?" They know nothing about Wi-Fi. It's not coming from Subway. Well, where was it coming from? I don't know. Who was paying for it? I don't know that either.

Now, this is pretty profound when you think about it. It was probably a law office upstairs or across the street. So I take my ThinkPad out and I'm walking down Main Street in Ridgefield, Connecticut, with my ThinkPad. People probably thought I was crazy. And I get this signal all up and down Main Street.

This is beginning to happen all over the place -- some of it on purpose and some of it not on purpose.

Yesterday afternoon I was sitting up here listening to the customer speakers.

I had my ThinkPad and a signal pops up on my screen. Next thing you know, I'm on the Internet at 1.5 million bits per second up here in the balcony. Where was that signal coming from? I don't know. It wasn't provided by IBM, I know that.

So I was driving up the Garden State Parkway recently (actually my wife was driving). I was in the other seat with Blingo and I'm watching as I drive up the Parkway. I saw BMW headquarters, I saw their wireless signal pop up.

Now, these wireless signals -- you can make them encrypted so that they can't be shared by others. So some of this is intentional, some of it's not. My point is this is a major, major change. This is going to enable us to break through that last mile; the last mile is not going to be an issue because of wireless.

This is about ready to transform telecommunications. These signals are going to be everywhere; you're going to expect it. When you go to the dentist, you're not going to want to read a three-year-old Reader's Digest. You want to sit there and check your e-mail.

Now, I'm not saying you have to be tethered to the Internet and answer every instant message. I'm not saying that. But I'm saying if you want to be, if you want to be, you should be able to be.

And you will expect to be able to have connectivity in the city parks. Austin Airport now has it. Starbucks, of course, is charging for it. There's room for a lot

of business models here. Some will be advertiser supported.

This is a great opportunity, by the way, from a marketing perspective -- to support free wireless access at your headquarters building or in a community that's important to you.

Companies on Newberry Street in Boston -- there's free Internet access. Just drive your car up, park the car and you're on a high-speed Internet connection. Of course, it's sponsored by a local company.

So, this is a major, major phenomenon that's going to change the number of people on the Internet to go from hundreds of millions to billions. That's going to become something that we will expect to have, I believe, as a public service.

Now, some of you may be sitting there thinking, "What is he talking about? This isn't going to ... I mean, it has a 300-foot range." Well, it used to be 300 feet until the kids learned how to take a Pringle's can and \$6.45 worth of parts and make what's called a Yagi antenna. There's a picture of one on the back porch.

Now this Yagi antenna is pointing at the employer of this person. And it has a range not of 300 feet, but of three miles. So now what the kids are doing is -- they go home, they put a Pringle's can on the roof of their apartment, they aim it at their employer and they're using the bandwidth from work while they're at home.

Kids are getting together and they're sharing bandwidth. They're saying, "You have a cable modem, I have DSL, we're paying \$50 a month. Let's just get together. We'll share. We'll get a Pringle's can and we'll set up shop."

Now, there are a lot of issues here about this Wi-Fi and I'm sure some of you are going, "Well what about security? Privacy? Who pays for it? What's the business model? Is it really scalable and secure?" And it's the same list of issues we had in 1993. It's the same list, exactly.

And for the same reason, there's no stopping this. So keep your eye on Wi-Fi. It's just going to change everything. And of course, the Pringle's can was only a temporary hero here. Now a big Chuck Beef Stew can has entered the race.

The current record holder of distance for Wi-Fi antennas.

Now, the next category is: everywhere. Where is the Internet, anyway? Well, for most people, the Internet is on a Web page. It looks something like this. Probably 95 percent of Web pages are viewed through a PC on a browser.

However, there are people, believe it or not, who want to surf the Internet and do their e-mail on a television. I cannot imagine doing that, personally, but there are those who do. Frankly, I see PCs and TVs not converging, but diverging.

TVs are going upscale, thin. You've seen the new Zenith ad for the four-inch HDTV, 16-by-9 form factor. That's where TV is going. PCs, of course, evolving in their own way.

And then there's the pager. Pagers are in decline because of cell phones, but there are millions of pagers out there and for many people, that's where they want their content. And then, of course, there are PDAs. We're not even two percent of the way into this.

Linux, which you've heard about, is changing how this market is evolving. With the capability of Linux, the manufacturers in Taiwan are no longer manufacturers -- they are now innovators. They're creating a lot of new devices. We haven't seen anything yet compared to what we're about to see.

And then, of course, there's the phone. Now, when I was here last year, I said to you, "I'm not sure that the phone and the PDA are going to converge any time too soon." But you know what? Then I found myself more and more often with a PalmPilot in one hand and a cell phone in the other hand. It's really hard to drive that way.

So I got one of these SmartPhones, the Kyocera SmartPhone. They have a new one coming out next month. I can't wait to get it. But this is pretty slick. It's got a speaker phone in it, it's got a PalmPilot, it's got 3,700 names in the address book, my wine list, my calendar, my to-dos, everything -- right here.

Now, it's a little big for a phone, but it's not just a phone. This convergence is now starting to happen. And in combination with what's going on with wireless -- and when you get the introduction of Wi-Fi chips, not just in PCs, but in your PDA -- now the world changes.

Now, why do I need cellular phone service? I can use the Internet for my telephone calls and for surfing the Web and do it from a device that I slip in my pocket. So, this is about to happen.

Now, the key point here is -- don't wait for 3G. And companies I talk to around the world say, "We're waiting for 3G." (This is the third generation of wireless.) Don't wait.

What is 3G? 3G is persistent, meaning that you're always connected. It's very, very fast. In Japan, the children are on the train and they're watching their phone.

And at first I wondered, what are they doing? And then I realized they were sending black-and-white pictures of themselves back and forth and they were planning their rendezvous at the mall and what train stop they were going to meet at ... and it's a social thing. Kids in Japan don't leave home without a device of this nature.

Now, they have 3G and so now when they're not looking at pictures, they can

watch a movie. I don't know about you, but I have no interest in watching a movie on my telephone. But I have a lot of interest in being notified if something happens.

I call them "notification-based transactions." So, when I'm racing to the gate at Dallas/Fort Worth and I arrive at gate 43, exhausted, to find out the flight moved to gate three, (which, if you've been through Dallas, you know is three miles away) ... wouldn't it have been nice to get a little notification that said, "John, your flight moved to the other gate. John, your flight was canceled. John, your check cleared ... your eBay auction happened ... your dad's pacemaker test ran, it's okay ... the wine you're looking for ... turn left at the next block ..."

So, notification-based transactions -- that's where the value is and that's what customers are going to expect from your companies. That's what they're going to expect.

They're not going to expect to watch movies. They'll be able to do that and games and multimedia. And the kids will establish where this technology is going, what it's going to look like, what form factor and shape and color and all that.

But, what I think all of us have to think about is -- what services are we going to provide from a business perspective? And it's not fancy stuff. It's simple. It's the basics. By the way, the WebSphere software that Steve Mills talked about has the ability included in it to be able to do this.

Then, of course, there's the kiosk and the kiosk plays a key role here, because all transactions will go to the Internet. All transactions -- because the Internet is the least cost, most reliable infrastructure from a communications point of view. So everything will go through the Internet.

Now, some people say, "I don't want a device." Other people will say, "I can't afford a device." And for those people, the kiosk will become very important.

When I was a kid, I'd go to the milk machine with a quarter to get a quart of milk. Now kids will go to the kiosk to check their light bill or whatever it might be from a transaction point of view.

Then we're going to see a whole family of appliances that will be connected to the Internet. This is an Internet radio connected through an Ethernet connection. There's an Internet watch that runs Linux which has a PDA built into it. You can imagine how this is going to go on.

So, some of us will have all these devices -- depending on who we are and where we are and what it is that we're trying to do.

Now, media is going to change in parallel with what's going on with the Internet. The media itself is going to change. How many of you use XM radio? Anybody have this? No? Oh, you're really missing a treat.

This is great. This is digital radio. You know about AM, FM – now there's XM. XM radio is a satellite radio. They have two million CDs stored on IBM storage devices in Washington, DC.

They beam the music up from the satellite, which distributes it out over a hundred different channels. No advertising. Most of them don't have it; 70 percent of them have no advertising. You pay \$10 a month.

For \$10 a month, you can get in your car in Maine and drive to San Diego and never change the channel. You can get the BBC and classical music and CNN, CNBC. Fantastic music selections, great programming. This is where media is going. Digital. Everything digital.

Now, of course, transactions are the key thing here. I gave you a hint of that. Let me type in a couple of characters of a colleague's name here. See if I can find this person. Okay, there's his number. I looked it up on the phone through the corporate directory at IBM.

And it gives me his phone number. And of course, I can just push the button and call him. Or I can send an instant message. I only get that choice if this person, Irving, happens to be connected somewhere right now.

He might be in an Admiral's Club or Crown Room, he might be at home, he might be on a speeding train. I don't know where he is, but, yes, I want to send this

instant message.

So here's a menu. Okay, what kind of message do you want to send? Call me now? Call me in five minutes? Help, I've fallen and I can't get up? So I'm going to send a simple message to Irving.

There's the message. It landed on his desktop. Irving answers me and says, "Hi John. I'm busy. I'll call you later." So, now we have the integration of the central directory ... with wireless ... with instant messaging.

Instant messaging has often been said to be for kids. It is for kids, but it's not just for kids. And this is one of the most powerful communications mechanisms of all times.

It really leverages the Internet in a very major sort of way. And we all have these buddy lists, whether we use AOL instant messenger or IBM Sametime, (which, by the way, is enterprise-secure and encrypted). And if you're a company as opposed to an individual, that Sametime is a much better way to approach this than using things like Yahoo or AOL or others.

Now, in your buddy list, of course, you have people's names. And these are people you work with, people you work for, people you're collaborating with on a project. It might be the school nurse. It might be family members. It might be your stockbroker. And these are people that you want to chat with.

Wouldn't it be nice to be able to send an instant message to the doctor's office saying, "Would you ask the doctor if it's okay to renew my prescription?" Contrasted with what we do today -- where we call and "Well we're out to lunch until 2:00" and then you call back and you get the answering service and then you get the call center.

And it's such a simple, simple transaction and people are asking us, "I wonder, why doesn't the company I do the business with ... why doesn't the electric company have this? Why doesn't everybody use this?"

This is a simple technology. I think of it as the back channel. It's like a real-time, multi-lingual intercom. Multi-lingual? Yes. Well, last year I showed you a German example. Some of you pointed out it wasn't exactly correct, but let me show you something a little different, how this has evolved and where I think it's going.

[TYPING] "Where can I buy a spare battery for my ThinkPad?"

Now, it turns out that the most knowledgeable person right now on that particular subject happened to be Spanish speaking. And so this person heard my question, which I typed in English -- I'm embarrassed to say, the only language that I know.

Now this person heard it in Spanish and replied to me in Spanish.

[DIGITAL RESPONSE IN ENGLISH] "Hold for the Web page?"

What are they talking about? And the next thing I know, up pops this Web page.

I'm not even running a browser and the browser starts up and it loads this page and that's exactly what I'm looking for. And, of course, if I had been this Spanish-speaking person, I instead would have gotten this page in Spanish.

Now, this technology is available today. You don't see much use of it. And I think people are going to expect this. People are going to expect to have customer service come into their PC and guide them through whatever transaction they're working on.

For example, you're filling out an application for a loan. And you get stuck on line 13 and a little instant message pops up from a customer-service person it says, "I noticed I that you were stuck on line 13. Can I help?"

And you reply, "Yes, please."

"Do you mind if I take control of your browser?"

"Okay, sure."

And so now the customer service person is driving my browser over the Internet. This is really value add. This is not like "Click here to buy." This is not like searching through our annual report.

This is high value add, simple transaction-oriented things. This is where the bar is going. It's not enough to have the annual report out there. It's not enough to "click here to buy." It's got to be this interaction which people expect.

Now, this instant messaging has a lot of legs to it. And in the interest of time, I won't go into this in detail. But just think about market research. Today we think about instant messaging as one-to-one. In some cases maybe we have a little chat session among family members or whatever. I like to get all my kids and we get together in these chat sessions on line.

But think about an ad hoc question. Today you might say, "I wish we knew what people thought of this new idea" So what do you do? Well, we saw in that one film that behind the glass doors or glass screens, there's sort of a proverbial focus group. Right?

Well, wouldn't it be nice to be able to send an instant message to 500 people who have previously registered and expressed an interest in a particular area of your company?

And you send an instant message and say, "What do you think of (whatever) idea?" And instantly you get the feedback back from all those 500 people ... and a bar chart shows up on your screen. This is where instant messaging is going.

The Internet is the greatest market research laboratory ever invented!

Now, e-meetings. I think we all participate in these, I hope. Now what I see going on here with these e-meetings -- the power of this is not so much in travel savings ... although that is important and it's noble, it's worth going after. But what's really powerful about e-meetings that is emerging, from my point of view, is the ability to even have a meeting.

So, I call Mike's office and I say, "I need to meet with Mike".

"Forget it, he's traveling for the next 10 days."

"Yes, but this is urgent."

"What can I tell you, he's traveling."

That doesn't happen anymore because what I've discovered is that people are always somewhere.

So if you're somewhere, you could have a meeting. If you're in the Admiral's Club or the Crown Room ... I spend a lot more time in those than I used to. For security reasons, we get there early, we have this time -- can we have a meeting online? Can we all share the same information that's right up to the minute? Who has the latest copy of the sales forecast? Could somebody fax me the copy of this? No. Shared simultaneously online from wherever you are -- is a very powerful idea.

And, of course, it extends into e-learning which leverages this to the classroom ... and you heard Lou make some very relevant comments about that yesterday.

Let's move onto intelligence. Now this is a deep, deep area. There's so much going on here to change the character of the Internet. It's allowing it to mature into not just a Web of content, but a Web of applications and a Web that has context to it.

We need to start thinking of the content in a different way. Today, most of us think of the content, well it's a Web page. Well, how big is a Web page, anyway? Well it's eight and a half by something, more or less.

Well we need to start thinking of these in a decomposed way. We need to take these Web pages and break them down into what we call "fragments." And these fragments represent different elements of the Web page -- including, for example, the product specifications, which would belong to and be managed by the product manager.

And then, of course, there's the picture of the telephone and things of that nature, which would be managed by the graphic designer. And then there's the disclaimer, which will be managed by the legal department. And then there's the company logo, which will be managed by some person who's looking at the overall perspective of the Web site.

And then, when it's time to pull all this together, you use what's called a "style sheet" and you publish not to the PC, but to a lot of different devices, because, as I think we all know, there's going to be a lot of different devices.

There isn't going to be one dominant device. There won't be, because we're all people; we're consumers and we all like something a little bit different. And that's the way it's going to be. I don't see that changing.

Now, the other thing going on here is this global application Web. The way to think of this new subject of Web services ... it's unfortunate in our industry that really important ideas get really bad names. And it makes it harder to communicate what they're all about.

And you've heard of this term "Web services." It sounds like something like what Ralph was describing, but it's not that kind of a service. It's actually a technology. And this technology makes it possible to have a sort of "Yellow Pages" of all the applications existing in the world that people want to share.

And you can go to that "Yellow Pages" and pull out something that's just what you want to include in your e-business. You can buy it or rent it, it doesn't matter. It's not a business model issue; it's a technology that allows the sharing of information independent of what kind of a platform it was built on. This is a very powerful idea that's rapidly changing the Internet.

For example, let's take a look at flights. Has anyone ever landed Friday night at JFK, let's say, an hour early coming in from Europe ... and there was no place to park the airplane? Has this ever happened to you?

If you travel, this has happened to you. Why does it happen? It happens because the flight arrival system and the gate scheduling system were built on different platforms in different decades and they do not communicate with each other. And so there are mismatches of information and so the plane sits there while you wait.

Now, how do you solve this? Well, the traditional answer would be business process reengineering. "We're going to reengineer this gate scheduling system" or "we're going to reengineer this flight arrival system, and we're going to integrate the function of the other one into it. And it's going to be ready in 18 months."

Well, if you don't have any competition, that's a good model. But if you have competition, it's not, I don't believe, the best way to think about it. Now, I'm not saying "down with reengineering." We all have to reengineer, continuously. But on the Internet, for e-business, we need to think about, "How can we get these incompatible applications to talk to each other?"

And there's a technology -- it's called "message queuing". And the way to think about it -- it's very technical, but I'm not going to make it technical; I'm going to make it sound simple, which is that these applications send e-mails to each other.

Now, think about the possibilities here. So, I got to the Marriott Web site and I

reserved a room. And at the bottom of the Web page it says, "How do you want to pay for this room? Credit card? Your Honored Guest Program points? American Airlines? United Airlines? Japan Airlines?"

Oh, yes. American Airlines. I want to pay for this Marriott room with my American Airlines points. I click, and after I click, these two servers start talking to each other.

And that Marriott server sends a message to the American Airlines server and says, "Yes, I've got this guy here named Patrick, and he says he is a member of your Frequent Flyer program. He says his number is C8H6872."

The message comes back and says, "yes, that's him. You're right."

Another message goes over and says, "how many points does he have?"

"He has 10 million points."

"Deduct 20,000 points and let me know when you did that."

"I did that."

So these messages, they're not really e-mails, but think of it as e-mails going back and forth between servers. There are going to be more messages going between servers than there are between people and servers.

And so the page comes back to me about a second or two later and it says, "Your room is confirmed. 20,000 points were deducted from your American Airlines points. Happy travels." So I'm a happy camper.

This is what this idea of the global application Web and Web services is all about.
This is not the future; this is something that can be done today.

Now, there are many other dimensions to this intelligence, and I'm not going to go into the details. You heard Steve commenting on grid computing. This is very profound, this ability to hook together not just PCs, but hook supercomputers together to explore the genomic database to work on protein research and to find out what the cures could potentially be for many diseases that had previously been thought incurable.

Autonomic computing is a related technology and there's some exciting work going here to allow networks and computers to just plain never fail.

And you think about the human body and the way we work, it's quite magical. We get cold, we just shiver, and those little goose bumps vibrate and they warm us up. And we get hot and we sweat and those little beads of sweat evaporate and cool us down.

We don't ask, "Body, would you please cool me down?" When you have to race to the gate, you don't say, "Heart, would you please speed up so I can have some more blood so I can move faster?" No, it's just automatic. Autonomic. That's our autonomic nervous system.

And that's what IBM is doing to lead an effort with many other companies and

universities to bring together this concept of an autonomic nervous system into computers and networks. Frankly, it's going to be essential, because there aren't enough experts in the world to keep all these systems running with the expectations that are going to be in place.

Okay, now, let me move to the next one: Easy. Easy? Oh, wow. It's really not so easy, as I think we all know. But there is light at the end of the tunnel. You heard mention of Linux. Linux has the potential to level the playing field -- the technology that works in any kind of a computer. And more importantly, the way it works being placed in the public domain for all to see.

Now, some people say, "Gee, it must be insecure." Well, the reality is, it's more secure, because the way it works is out there in the public view, and so the holes can be patched and you don't have to wait for IBM or Microsoft or anybody else; you've got the whole world working together on it.

I can't add to open standards; you've heard that from so many. Consumer products I think are the real key to begin to make this easier. PCs are still too hard. Somebody made that point; it was probably Lou.

I know he likes to say, "John, explain to me, if I want to stop the computer, why do I go to the 'start' button to stop it? And it doesn't make sense. If I want to print something I go to the file menu."

Now, can you imagine Matsushita or Sony building a product that, when you push the red button, it says “off?” A message pops up and says, “You have failed to properly shut down?” No, that’s not going to happen. So consumer products are the break for freedom, I think, in this category of making things easier.

Now, blogging. I’m very excited about blogging. And when you visit Patrickweb.com, you’ll get a flavor for what a blog is. A blog is short for “Web log.” A Web log is like a diary. It’s a diary of a person like me or any of you who has a point of view about something.

Now, just imagine a product manager in your company ... every company has visionaries. You all have visionaries in your company. You all have people in your company who love to communicate.

They’re on the road all the time giving talks, giving lectures, writing papers. Well, now they can have a Web log. And this expert can write how often? Well, today how often do they write? Well, they write when they get a chance to be interviewed by someone in the press. So they have a PR person who talks to the press and says, “You know, you really need to interview this person; he’s got a terrific point of view.”

“Yes, okay, well, maybe next year we’ll work that in.” Or, they interview the person, they write a 5,000-word story and the editor says, “That’s very nice.

We're going to edit that down to 750 words.” And then it gets to the copy room editor and the copy room editor says, “That's a really great story, but we only have 3.7 column inches available, so that's what we're going to get this down to -- 300 words.”

So that 5,000 words of really important information got reduced to 300 words.

Now, with a Web log, this person writes all the time, every day, twice an hour, every five minutes, once a month -- it doesn't matter. They have this Web log and whenever something occurs to them, they write it.

Now, more importantly, after they write it, they click a button and it shows up in their Web log on their Web site ... and it also generates a table of contents, an automated table of contents, which is automatically distributed to everybody who caress about this particular category of information or this particular author.

This is going to revolutionize publishing. You won't get up in the morning and read papers anymore. You're instead going to go to the Web log of somebody you know who reads everything and reduces it to their opinion about what's important in the news today and puts it in their Web log. And you're going to subscribe not to all these other formal places; you're going to subscribe to good old Bill's Web log.

So this is a powerful idea ... it's not a new idea, but it's emerging rapidly now.

And from my perspective, it's a marketing communications idea.

Now, unfortunately, the techies have given it a lot of complicated names, but just ignore all that. Look beyond that into the potential of a new way of communicating. This is as new and potentially as big as what the Web was back some years ago. So I urge you to look into it.

Now, the last of the categories is trust. And this of course is the biggie. Trust. There are many dimensions to this. My favorite I guess is when I get this 13-page fanfold document from my financial services company which explains their policy as required by law ... which is the reason I received it in the mail ... and then I find on the last page it says down at the bottom, "opt out."

Now, "opt in" and "opt out", of course, means the ability to have the option to have your information shared. I just got a notice from my insurance company about a renewal of an umbrella policy, and I was reading through all this stuff, and I just happened to notice this at the very end.

And it said, about their opt out policy, it said, "Fill this out and mail it to us if you would like to have us not share your personal financial information with any related party that we may do business with."

Now, talk about profound. "To share any personal financial information we have about you." Now, it didn't say, "Opt in." It said, "Opt out." What does that mean?

That means that you have already given your financial information and they, financial services companies, have the right -- and are exercising the right -- to share that information.

If you don't want them to do that, you have to opt out by writing a letter. And then it says, "Eight to 12 weeks." Does it have an e-mail address where you can make this request? No. Does it have a Web site where you can ... no. Is it even perforated on paper? Is there a return envelope? No.

Do you get the feeling they really don't want you to send this in? Yes. And does it take eight to 12 weeks? It takes eight to 12 milliseconds to move money from one account to another; it takes eight to 12 weeks to have your privacy respected. This, as Lou said ... I can't say it better than Lou ... this is not behind us; this is a looming issue in front of us.

But from a marketing perspective, I believe this is a huge opportunity to link your brand to a digital ID and take the high road.

And the digital ID is what we need. We don't need one digital ID stored in Washington where everything about us is in one database. That we don't need. My bank doesn't need to know about my medical information; my doctor doesn't need to know about my bank information.

So, this needs to be a very highly distributed decentralized approach with digital

IDs. How many digital IDs do you have in your wallet today? None. But how many IDs do you have? Probably a dozen. Probably have multiple digital IDs too, not one issued by the government. No, that's not what we're talking about it.

We're talking about a digital ID from your company, with your brand on it, which allows people to be empowered for authentication, for authorization, for confidentiality, for security and for non-repudiation.

So, this is a powerful, powerful idea. And by the way, it's being done in many parts of the world. It's not a government problem. It's not a legal issue, although many of you are being advised it is a legal issue.

To be honest, I recommend that you get the compliance people, the marketing people, the business people and the technical people together in a room and have a talk about this and put the burden of proof on the people who are saying no, because these are not technical problems.

We can do this. We don't need notary publics. We don't need gold medallion signatures. We don't need faxed forms. We don't. It's not technical, it's not legal. It's attitude.

Trusted transactions are around the corner. Once we have these digital IDs, then we can, in fact, have real, trusted transactions beyond what we have in e-business today.

P3T is something to also keep your eye on. This is the Platform for Privacy Preferences. And this is very important. Some people want to be anonymous, some people will tell their life history for a five percent discount. And both of those are okay. And they need to be respected.

The key thing that potentially could slow all this down is public policy. So I urge you to work with your policy people and urge them to work with government and with the many organizations like the Global Internet Project and the Global Business Dialogue and multiple organizations in this space working to help convince political leaders not to regulate the Internet. That would not be a good idea for the furtherance of e-business.

Well, let me conclude with the subject of attitude. What are we talking about here, attitude? Well, part of it is how we think about this, thinking outside in. Outside is where all the people are. They have the power. Let's walk in their shoes.

Now, what's an example of inside out? The best example I can think of is the call center. Now, I'm not saying get rid of call centers. We can't get rid of call centers. We can't today. Maybe someday, but that's not the idea. The idea is to integrate these call centers with the Web.

You call the call center, press 1 for English, 2 for Spanish. 1. I want to change my zip code, I just moved, I want to update my address. Press 1 for sales, 2 for

support. 3 for the location of our nearest branch offices. 4 to learn about our exciting new product, which is capable of doing da-da-da...phgh!

I just want to change my ... zero. I want to talk to somebody. I don't really want to talk to somebody, I just want to change my address. Zero. "Welcome to ABC Company. Press 1 for English, 2 for Spanish ..." Oh, and then "Please pay attention, because our menus have changed."

How can it be that every call center in America, their menus have changed recently? How can that be?

So then you say, "Okay, it must be 9." Push 9.

"Thanks for calling. Goodbye." That's the call center. Is it just me, or have some of you experienced this? Yes, right. I mean, it's driving people crazy.

And wouldn't it be nice to have a Web page, oh, there's one, click, that's what I want. And then have the integration between these two, because there are times when people do need to talk.

Now, secondly, think big. This Wi-Fi, blogging, wireless, the devices. There are some big possibilities here from a marketing perspective. So think really, really big ... but don't try to implement big. Implement small and go by baby steps, lots of them, real fast. Not every 18 months; every 18 hours.

That's the way to get going on e-business. And listen to what those customers are saying and turn it right into modifications.

And I have to say, you know, so many of the Web sites, they're beginning to irritate people. Your Web sites are beginning to irritate people -- just the opposite of what you're trying to do.

Why? It's just simple little things like you go to fill out ... I got a thing in the mail and it said, "Renew this software license."

So I said, "Okay, great."

It said, "Go to software.com/renew."

I went there, up pops a Web page. "Great, this is going to be quick."

It had two fields on it: customer number and zip code. "Great. This is ... I'm going to be finished in 10 seconds." I get the piece of paper, there's no customer number. Now what do I do?

Then I go through my files, I found an old document with the customer number, I put the customer number in, phh! Up pops a page and all my information. Terrific. Well, I moved recently. So I'm filling out the form and I get to the phone number, 203-438-74...whoop! It won't take anymore. Had to backspace, there's no room for the dashes. Okay, so I put it in without the dashes.

Then I get down to the zip code field and I say, "Well, they don't like dashes here, so I just put in my 9-digit zip code. I hit the submit button it comes back, "Error." The zip code is wrong. Well, they wanted the dash.

Would it be possible in a Web page to have a little technology in there that lets you put it in with dashes, without dashes? Should it matter? This is so simple. You don't need M.I.T. computer scientists to help you do this. This is simple.

Yet most ... I would say 90 percent of Web sites ... do not allow you to put it in however you want to put it in. And if your database needs it one way or another, then let the software figure that out and not put the burden on you and make you feel like an idiot because you put it in wrong.

Now, third thing: partners and prototypes. These are so obvious, I think, but never has it been more important to have a technology partner who you can work your way through this journey and to prototype, try things.

It's a different model than what we're all used to. The old model of "plan, build, deliver, 18-month cycle" just doesn't cut it with e-business. Prototyping and trying things is so crucial, and there's a lot of things to try, and some of them will work and some of them won't.

And you don't have to try it like Victoria's Secret did by announcing that you're going to do it right after the Super Bowl. Yes, you can try it in Philadelphia only,

to certain customers only, and limit it and get the experience and go from there.

And lastly, of course, think integration. You've heard that word so many times, but it has to be a state of mind. The technology -- IBM can help with that. Don't worry about the technology. It's a state of mind.

So, in conclusion, how do you survive with all this? Well, of course, listen to the customer. Listen to every mouse click. Why did they come to the site? Why did they leave? How long were they on each page? What happened while they were on the page? And I'm not talking about invading your privacy; I'm talking about finding out what happened while they were on the page.

Anticipate this next generation of the Internet. This is unfolding very, very rapidly -- much more so than the early evolution of the Internet 10 years ago.

Build, of course, on an open framework so you don't get locked in.

Get a taste of this culture. Talk to kids. Ask them what they think it's going to be like. Set up a Web advisory council of people, let's say, 16 to 23 and meet with them.

If you can't find any kids, borrow some, set up this council. If you can't find any anywhere, then talk to these people. [Graphics of senior citizens] They completely get this, by the way. Their expectations about technology in the

retirement centers that I go around to visit -- they are way ahead of the average person. It's contrary to popular belief. They completely get this.

And when they see something that doesn't make sense, 9 to 5, Monday to Friday, faxes, et cetera -- unlike the kids who will just move on to somewhere else, these people are going to write a letter to the chairman of the board. "Dear Lou, why is it this way?"

So, let me just give you a reference for what you've seen in this discussion. You can reach me at John@PatrickWeb.com. You can get a taste for what a blog is all about and become a blogger over the weekend at PatrickWeb.com. The presentation that I've made here is also on the site, and feel free to use it, take it, print it, copy it, share it in any way that would be useful to you.

It's been great to be with you for these couple of days, and I congratulate you on coming and taking the time to be part of this. Thanks very much.