

“INVENTION: THE NEXT SOFTWARE”

SPEAKER:

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(Applause)

NATHAN MYHRVOLD: I'd like to start by taking you back about 150 years ago to the middle of the 19th century. America at that stage was still what we would call today a developing country. The bulk of our country was still wild and untamed. Our industries were growing but we were not an industrial giant; industrial giants were in Europe.

But starting in the middle of the 19th century an amazing thing happened. America started to become [home to] the world's inventors: people like Samuel Morse with the telegraph, Graham Bell with the telephone, Edison with a dozen different things – phonograph and electric light – Tesla. A huge nexus of inventions started in America and from the middle of the 19th century on, the world has looked to us for its inventions. This has been a source of incredible strength for this country, economic growth and what we now call national competitiveness, although that wasn't the way they viewed it in the 19th century.

Over a long period of time that shifted from the 19th century, which was really an age of independent inventors. Everyone I just mentioned started off as an independent inventor and they got a great idea, they pursued that idea. Sometimes those ideas turned into giant companies. General Electric got its start in patents that were contributed by Thomas Edison. In other cases they started companies that fizzled or they licensed their patents, but it was an age of independent invention.

Over the course of those intervening hundred years, a bunch of things changed. Corporate entities started taking up the mantle of research. By the time I was a kid, most of our research was done by folks like Bell Labs and IBM Research and large industrial research labs supported by the biggest companies in America. That's where the nexus of research was. Although it still occurred, of course, it wasn't as much the age of the independent.

I think the 21st century has come full circle. I think the 21st century is going to be the age of invention and it's going to be an incredibly exciting, exciting time for those of us nerds that like to invent. It's going to be an exciting time for those of us policymakers that make the rules of the road by which people who invent co-exist with other parts of the economy.

Now, when I got to Microsoft in 1986, we didn't have patents – we'd applied for two – and we didn't do any research. We spent our entire engineering budget, such as it was at the time, trying to make products. And it was an incredibly exciting time to be involved because we had this dream that the personal computer could be everywhere. We would say it would be in every desk and in every home. And I used to get so ridiculed for this because, why does everyone need it in every home and every desk? And of course now it isn't just in every home and every desk; it's in every pocket, it's in

everywhere. And over a period of 20 years, Bill Gates' original vision came true. And in doing that it made an opportunity for Microsoft but tons of other folks.

Well, along the way I said, "Look, we need to . . ." – my mother grew up on a farm in Minnesota so I – even though I've never lived on a farm I grew up with all these farm analogies, and everything was "like doing this" or "like doing that." And I realized at one point that at Microsoft – we were eating the seed corn. We weren't actually putting enough investment into future research. We were a little company. We were struggling, that was one thing, but at a certain point you've got to go and make an investment in the future.

So I was fortunate enough to convince Bill and the board that we should start Microsoft Research, which, with 600 researchers, is the largest industrial research lab in the world. Bell Labs is still going on as a division of Lucent, IBM is still going forward, but of the young companies of the technology revolution, I wish more of them had done what Microsoft did and started that kind of industrial research.

Well, about six, seven years ago I left Microsoft. I looked at being a venture capitalist. That's what lots of people do. Everyone and his brother is a venture capitalist. In fact, my brother is a venture capitalist. (Laughter) He was also an executive at Microsoft and he retired and that's what he became. Venture capital is kind of an interesting thing. I looked into it very hard. Over the course of the last 30 or 40 years, venture capital has changed the face of American business and worldwide business. And they changed that because they supplied capital and expertise to a set of folks that had none – entrepreneurs.

Now, for as long as there has been capitalism there have been entrepreneurs. Hewlett and Packard had their little garage in Palo Alto, and they actually got a loan from their professor at Stanford. There weren't any venture capitalists at the time. But that system caused a lot of people who might have started a company not to. So you got the occasional Hewlett and Packard but you missed a whole lot of others.

So venture capital went from nothing 40 years ago to the point where it's a gigantic industry today. It's a standard thing that if you have an idea and a plan and a team, you can go and say, "I'd like to get some funding." And if you've got a good idea, plan and team, chances are you'll get it. But you can try this experiment: Actually I did. You can go to — go to a venture capitalists like in Sand Hill Road in Menlo Park or there are some in Washington, D.C., and other folks, and you say, you know, I don't have an idea yet but I'm sure I'm going to get one. (Laughter) You know, if they're polite they'll say, "Why don't you come back after you have it, okay?"

If you look at the invention process itself and you ask, "Who funds inventors?" the answer is almost nobody does. Now, there are inventors at universities, absolutely, but, technically, inventing isn't their job. If you're a great inventor you're not going to get tenure unless you're also published in all the right publications and so on and so forth. If you write a grant to the National Science Foundation or the National Institute of Health

and say, “I’d like to invent some radical new thing,” they’re not going to accept it, because their grants are about scientific inquiry. It’s about pushing forward the boundary of knowledge. Invention is at best a side effect.

Industry invents, but all too often industry focuses on today’s problems and doesn’t pay people to think about the problems of five and 10 years and 20 years out. Now, there are examples where they do. I mean, Microsoft Research is an example. I don’t think there are any examples in our industry of that scale that have happened in the last 25 years – unfortunately it’s pretty much alone – but by and large, instead of me applying expertise and capital in the venture capital thing, where I would have been the ten-thousandth venture capitalist in America, I say, “You know, something? – I’m going to do a different deal. I want to become the first **invention** capitalist.”

So literally what my company does is we invest in invention. I’m not here to give a commercial on it, but I want to explain the idea here because if I’m right, this is something that really has lots of implications for our nation, our economy. And if I’m wrong I’ll have a lot of egg on my face in a few years. We believe that by applying capital and expertise to the invention process, we can create a stimulus – we can let people invent who wouldn’t have otherwise, just like venture capital lets people start companies who wouldn’t have otherwise. So we literally work with inventors before they have the idea. Now, we don’t just pick anybody; we pick people who have a track record of invention, but we say, “Look, we’ll fund you to think about great new problems. We’ll bring you together with experts in your field, or better yet, experts outside your field.” We had a recent invention session where we had a brilliant young brain surgeon come talk to some computer scientists and some physicists about the problems that they have in brain surgery. And, “Is there a better way to do this? Is there a better way to do that?”

Now, nothing may come of it. We got half-a-dozen ideas that we’re very excited about, and of those statistically you’ve got to know that most of them aren’t going to succeed. But our principle is if you’re going to apply capital and expertise, you can get those people together and do things that you wouldn’t have otherwise. You may get some great things coming out.

We also – if you’re a larger company on the venture capital stage, instead of venture capitalists you go see private equity firms. And 20 years ago there really wasn’t much in the way of private equity, but a number of people in New York pioneered that and now half the big offices in midtown have private equity things, and the other half have hedge funds. (Laughter) But the private equity guys exist because there are mid-size companies that, for one reason or another, need to have money and the public markets may or may not be the most appropriate way to do that. So we also invest in existing inventions. We’ve done deals with about 50 universities now where we look at intellectual property that they have, particularly things that they haven’t been able to do anything else with, and say, “Is there a way that we can supply capital and expertise to invest to make those things happen?”

You know, if we step back and look at this big picture, we've been successful as a nation since Edison's time because we could lead in invention. If we look forward and we say, "Well, okay, now are we going to compete with China on the basis of manual labor or low-cost menial jobs?" – I don't think so. Now, there is no single way we're going to compete with China – I'm sure there are lots of strategies – but being inventive, coming up with the next new thing, and then being able to protect it. That's the other interesting point, in that to the degree that you – the way the capitalist system works, we organize our economy by saying things which take capital to buy or create, and which can generate capital, if you're good at it, are owned privately, and that's what the private system of capitalism is.

Invention as property was really an amazing abstract idea if you think about it. Copyright – by the way, is another form of intellectual property, but I'm focusing here on inventions and patents. Someone says, "It takes capital to have that great idea and prove it and make sure that it's right. It takes lots of focused effort, so let's treat that as property and let's have a system that says if you disclose it to the world, we'll give you an ownership incentive, the same way we give you an ownership incentive in real estate or we give you an ownership incentive in other abstract things – stock certificates."

At one point at Microsoft in maybe '87, '88 Microsoft stock started going up and Bill Gates first became a billionaire, and he was interviewed by someone in the press. He's very uncomfortable with this because he was sort of a nerd. And they said, "So, you're a billionaire?" And he said, "Well, on paper." So afterward – I was standing there and I said, "Well, Bill, what do you expect, a mountain of gold bricks? (Laughter) In fact, to be honest, it's not on paper. It's entries in a database somewhere. You are a stored-electron billionaire." (Laughter) The nature of value in our society is such that value isn't a mountain of gold bricks; value is a bundle of powerful ideas, and then it's intellectual property laws that help protect those powerful ideas as property.

You know, in Microsoft's case, the case of the software industry, when I first started in it, a little company in 1984, which I later sold to Microsoft, people would literally say to me, "How can you make it in the software business?" It sounds ludicrous today. It sounds like I'm your grandfather telling you about a time before cell phones. (Laughter) But in fact, people said, "Look, hardware is where all the action is. Yes, software is valuable, but it's only valuable if you bundle it with something real." Real, in their view, meant hardware.

In 1987, as a representative of Microsoft, I went to a conference. It was called Agenda. It was the big – it still goes on. It's the big industry conference in the PC industry. And there was a panel discussion I participated in – "Can Microsoft Make it Without Hardware?" I swear. Now, we had a proposition and the proposition was not only can you make software valuable without hardware; software was actually a better business without hardware, because if you separated yourself off and you just became a software company you could focus on making the software best as opposed to always being a tug of war, who's on first, who's most important? An independent software company can target everybody's stuff.

Well, broadly speaking, we were right. I don't just mean Microsoft; I mean the software industry was right. Larry Ellison was starting out at the same time thinking he would make a database company. The software industry was an idea that said you could take an intangible thing that at the time even those in the industry wondered, can you make a business out of this? Well, the thing I love about this world and this industry and the interesting times we're in is I get to do the same trick twice in a career. I took the software industry – the software as a business, as a business model, seriously in 1984. I think I get the opportunity to take invention as a business seriously today.

And when I talk to people they say, “Well, okay, inventions and patents, those are interesting and those are a good thing, but only if you bundle it with the real products.” And the part that I really find funny is when someone says, “and that real product is software.” (Laughter) And I'm not an old man, but I get to be able to say, “You kid! I actually was fighting the fight for software to be a real product, you know, while you were in your metaphorical diapers. (Laughter) And we had to go through and prove ourselves that you could actually have a business that was about software.”

You know, our focus in my company now is to say, invention is the next software. Both I mean that literally in the sense of invention is an intangible thing which when wrapped as property as something you can invest in and make money from, it's something you can focus people on doing.

I'm not actually the first invention capitalist. You could argue Thomas Edison was, and there have been a number of others, but there isn't an invention capitalist model. If we're successful, if we don't make fools of ourselves, which is – you know, if you do something very different than the rest of the world, it either means you're really smart or you're really dumb or you're some mixture, and kind of the only way to find out is to do the experiment. But if we're successful, there will be an invention capital model. And maybe they'll say that's because I was successful, or maybe they'll say that's because I was half right and I screwed something else up, but channeling resources, expertise, capital to America's inventors to stimulate new inventions I think is just a tremendous thing.

And we see this happening in lots of ways. You know, QUALCOMM is a company that is really about that model. They backed into it, but that really is what they do. I know a number of people that are in the private space movement – people like Burt Rutan and others that are trying to compete with NASA and other entrenched interests and saying, hey, we're going to go off into space. You've got to be a crazy optimist to do that, but it's the ideas that they have may unlock space and put it into an entirely different thing – not necessarily against NASA or against the other things, but in a very stimulating competition. You know, the PC business didn't grow because all of the old players from the old world stayed there; it's because a whole lot of new players came in.

So, in a nutshell that is my vision for how the 21st century economy grows. Of course we're going to keep doing start-up companies, and of course we're going to keep

doing that. That's important. Of course, all of the rest of the food chain of people that supply capital and expertise to companies at various stages will be there, but I think invention is something that deserves support, it deserves honoring, it's an important part of national competitiveness.

With that I think I would like to take some questions.

Q: How would you go about – you said you fund inventors who have a track record of inventing, but what about the new inventor who doesn't have a track record?

MR. MYHRVOLD: Well, you know, that is a classic problem. In many ways that's the talent-discovery problem that many fields have. So how do you discover talent in the world? Well, there is one sort of standard recipe for finding talent, which is the school system, and there are people who do well in the school system. When I first came to Microsoft I was hired by Bill Gates, who was chairman and CEO, who had dropped out of college. The president at the time was Jon Shirley, who has previously been CEO of Tandy Corporation – he dropped out of college – and Steve Ballmer, who dropped out of Stanford Business School. And I said, "You know, guys, I've got two Master's degrees and a Ph.D. Is that a career-limiting thing here?" (Laughter) So although the standard way you find talent is in fact school, there is also alternate ways you find talent, and guys like Bill Gates, that don't have anything but honorary degrees, have still found a way in sort of the free market of American ideas, to be successful.

So for inventors, some of our inventors are professors at MIT and Harvard and places like that, and they're kind of the usual suspects, some of them don't have huge amounts of training. I can't go find everybody. There is a new reality shows called "The Next Great American Inventor." At one point they actually wanted me to be a judge on the show, but I think they decided for somebody that was more attractive. (Laughter) There is a whole lot of ways – and that's why – you know, invention isn't always going to just be about me or about any one thing. It's about promoting the American system where a guy like Bill Gates or dozens of other people that actually were complete dropouts and had no qualifications whatsoever still managed to bubble up to the surface.

Q: In your model, what about the independent individual inventor? There is your model, and they all go to work for you, and your venture capital bundled them, but what about them? They say well, I don't want to give you the rights to my invention.

MR. MYHRVOLD: Well, it turns out we actually do work with a number of independent vendors that don't work for us. They stay independent. Like a venture capital deal, we come to an arrangement with where they get a share of the equity and we also get a share for providing money and expertise. So we do work with them that way, but – you know, I love independent inventors. And let me tell you; if you work with a bunch of them, you realize that that "i" in "independent" should be capitalized. They are a very independent set of folks. You have to be driven and passionate about your idea because you believe you can do something the rest of the world thinks is impossible.

At Microsoft Research – and we were hiring researchers – I used to say I want someone who is narrowly insane – (laughter) – in that I want someone who is crazy enough to think they can solve a problem everybody else thinks is unsolvable. But I want them to be sensible in all other ways. The challenge is balancing that. Let me tell you, it's a challenge. Sometimes the insanity isn't quite as narrow as you'd like.

So independent inventors are independent. I don't have a general solution for all of them. I've got to say one thing since I'm here in Washington, D.C. and policy – many of you are deeply involved in policy. It's a real challenge to get independent inventors' voices heard here in Capitol Hill because they're independent, because they don't have multibillion-dollar budgets, because, just to be frank, many of them are cantankerous and independent-minded and really want to have their own very strong ideas, and the idea of coming together in a group to Washington just – if they were group followers they wouldn't be inventors. But then that's a challenge because we have to make sure all of us, we don't throw the baby out with the bathwater just because that's a group that may find it hard to get a hearing here.

Q: One more question. Recently there has been a lot of chatter in these kinds of circles about the, quote, “patent trolls” –a very nasty word, I think. And the question is, how do you distinguish or delineate or discern one from being a patent troll versus being somebody who is simply capitalizing and taking – (inaudible) – measures? An example of that – what do you think about NTP? Did they overreach?

MR. MYHRVOLD: What you asked is an excellent question. I make it a practice not to call anybody a patent troll. And if you look at how other people use the term, they've applied it to virtually every company in the industry. Anyone who ever has a patent dispute nowadays seems to call the other person a patent troll. So I don't know what it means anymore.

Many of the cases that people describe as a patent-troll case at first blush, if you actually dig deeper you discover that in fact the facts might be quite different than they say. And, frankly, we've done a study, for example, to see what fraction of patent lawsuits is actually due to people that don't have products. And it turns out that almost all patent lawsuits are between two companies over a product. The bulk of patent lawsuits are midsize companies suing each other. Two percent of patent lawsuits over the last five years are due to entities that, as far as we can tell, have licensing as their primary business. And I'm not saying they're trolls, that they're bad, by the way, but no matter what you think of them, good or bad, it's only 2 percent. And because someone – if someone makes a fact-based argument patent trolls are overwhelming us, okay, tell us the case numbers; we'll look up the dockets. If you really think that it's out of control, prove it.

In fact, if you look, many of the people that are active in describing patent trolls lose cases on an annual basis to completely upstanding companies that were pioneers in their field, often fell on hard times and now are trying to make do. But these are people that certainly tried extremely hard to make products and just didn't succeed. And, you

know, the patent system is a race. This is a very important point. You know, the Winter Olympics, they give the gold medal to the man or woman that gets to the bottom of the hill fastest, and that's how the patent system works. That's how scientific research works. So they call it Newton's equations or Einstein's equations because they published first. It's a race to be first. That's what motivates scientists.

Well, in many cases in business, someone gets there first, but they're a university or they're an independent, or they're a start-up company that later fizzles. And then later on a big, powerful company, five or 10 years later – the little company tried to do it before it was ready. It was not ready for prime time or they were ahead of their time. They failed. So the big company comes later and says, look, I ought to be able to use that stuff, because now 10 years later it's feasible, it's profitable, it's mainstream.

Well, in Olympics you give the medal to the guy that got there first, not the guy that got there richest. Okay, it's very much like saying, in the Olympics, hey, don't give the gold medal to them; they don't have any endorsement contracts. Let's go to the person who has all the endorsement contracts; they'll use it better. That's not the way you create a stable economic incentive for people to strive to invest time and energy before others.

Q: You've acquired quite a few patents, I understand. In terms of intellectual ventures and related companies and obligations to scientists (?), how many patents do you now own?

MR. MYHRVOLD: Well, you know, that's – not a lot, is the answer, and parsing it out is actually very challenging because there's some things we own a piece of. We own a different piece of that. And frankly, it's not a subject that we've found a whole lot of value in us discussing publicly because it's not one – if I give you a little number, then I'm only a little patent holder, and if I give you a big number, then that looks big and scary but not for any particular reason. But I'll tell you this: Out of the inventions we file ourselves – on our own inventions – we've filed about 400 so far. We file about 300 per year. You know, if you look in terms of the top inventing organizations in America, that would put us about number 25th – you know, 25th, 27, something like that – somewhere in that range. So I think we're going to be a very substantial patent holder, but –

Q: But some people have said that you have – (inaudible) – companies who own patents. Is that true?

MR. MYHRVOLD: Well, you know, I didn't come here to discuss all of the details of our business. I'm happy to take this up with you after the talk, but I do want to discuss this NTP thing that was brought up because it's pretty timely. And the NTP and also the case involving eBay that's about to go to the Supreme Court, it illustrates some very interesting aspects of the patent system. The first is that case law often is made or broken on cases that are pretty strange and have all kinds of warts on them. And I think that the NTP RIM case is a great example of that.

At stake here was something very important to all of us because we all have our Blackberries and our Treos and other forms of communications, but also at stake is a certain set of inventors' rights. So did NPT overreach? Did RIM overreach? You know, if it was up to me, they both should have settled a very long time ago and this shouldn't have gotten this far. That's also what the judge said in his ruling last Thursday. He said, you know, I can't possibly imagine why this case hasn't settled. I don't want to enter an injunction but I have to deal with the reality it hasn't. You know, telling these guys, look, they ought to come to some kind of an agreement.

In the case of the eBay MercExchange case, which is going to be heard going forward, you have the same issues. You have a bunch of details which are very specific to the case. Yeah, I'm the last guy on earth that wants eBay to be shut down or shut off because I'm a huge buyer of all kinds of random crap on eBay. (Laughter) My wife might be on the other side on this one, actually – (laughter) – because she says, you know, the garage is full, the attic is full, my warehouse is full. But the cases come up for review, in this case before the Supreme Court, not because of all of the details of the thing but because of principles, and principles that will come out. And the thing that's really interesting in this eBay case, like the other cases, is the principle of exclusivity. You know, do the inventors have the same kind of rights because they got their first and invent something than a company that's big and powerful and has lots of products? Do we create a level playing field where we say the law treats these people the same, or do we create one that isn't level?

And so I think everybody in the whole intellectual property business is working this week on amicus briefs – you know, the sky will darken as FedEx delivers all of these things to the court on Friday – and we'll see how the court deals with some very important abstract issues, even beyond the things of what actually happened with respect to those two particular litigants.

Q: So, for your model to work – (inaudible) – a broad sort of description – (inaudible).

MR. MYHRVOLD: Well, you know, ultimately the bedrock here – as I said, this great abstract idea, which traces its roots back to the 15th century but in America very strongly to the Continental Congress, and I think it's Article Eight, Section Eight of the Constitution, is you treat intellectual property as property. And so the bedrock thing is if we don't have strong intellectual property protection we're going to be in a world of hurt. It's very contentious because companies that rely on intellectual property for their business and companies that don't rely on it for their business, or rely on it in different ways have lots of disagreements.

So the first thing for my business is we can't disenfranchise America's small inventors or universities or start-up companies or businesses that are trying to compete with the big guys. If we do that we might slightly advantage our current big guys but we won't get new big guys, you know, five and 10 and 20 years out, which is what we're

going to need to do to succeed. We also have to protect those things abroad and really get broad agreements on it because, you know, for all the national competitiveness, if our best ideas are implemented in India and China and other parts of the world – (snaps fingers) – like that, how do we hang on to lasting value?

So getting – not only do we have to respect it, we have to get the world to respect it. I think we also have to continue an American history of supporting research and development. So my industry – my old industry at Microsoft – the whole computer software thing wouldn't have happened without DARPA very intelligently and judiciously planting seeds that gave rise to the Internet and everything else. But if you ask, is DARPA doing the same kind of seed-planting today, the answer is no, not with the same bold vision they did in the '60s and '70s. If you ask, "Who else besides DARPA – who is doing this in other areas?" You know, NIH does great work, these other people do great work, but there is a kind of seed planting that traditionally has been the role of the government that I don't see the government doing as much as possible.

I think I – yes, it is my soapbox for the moment so I'll stay on it for a moment. (Laughter) You know, we have to make science and engineering cool. You know, if a country like – China is going to graduate, I think, 300,000 engineers and scientists next year; we're going to graduate 60,000. Now, it's not just a numbers game. Ultimately if they really put their minds to it, they could have more engineers than we have people. (Laughter) But the converse is if we're not careful we'll have more lawyers than they have engineers. (Laughs)

And in other ways we need to make sure our educational system is stimulating the right kinds of personal investments by people to gain the skills that are going to cause them to be effective parts of the 21st century economy.

Q: (Inaudible) – which is why should we support greater taxpayer support for R&D when American multinationals are tripping over themselves to do that foreign – (inaudible) – in China and other nations?

MR. MYHRVOLD: Well, I think that that's a very excellent question, and that's – I mean, just to be blunt about it, that's the difference between corporate-welfare-oriented research and development spending, which – you know, guys in corporations – I used to be the head technology guy in a big corporation. Guys in corporations are not evil, okay? I used to be one; I'm not going to say that they're evil. But they are going to do whatever is most expedient for them. I think part of the answer is you say, look, R&D spending from the government has to go into basic avenues of research that these companies are not investing in. And it's those areas which are pre-competitive or are falling between the cracks, where if the federal government doesn't do it, nobody will.

And so you're absolutely right – pouring federal money into a highly applied thing that only affects a specific industry that someone is going to outsource to China tomorrow wouldn't make any sense. Now, that's a hypothetical; I don't know how much that's actually happening, but to treat the hypothetical, absolutely, but fundamental

investments, to make sure that we keep having engineers in this country, investments in basic science where you get smart people to follow their curiosity and take us into brand-new areas, that's something which historically we're the people that have done the best in the last 100 years. And, frankly, the people in places like India and China are focused on copying stuff that works. They're not focused on discovering the new things. We can't lose our lead in discovery.

So that's a very complicated issue and I've only given a simple answer, but it's a shot at it. Other questions? Yes?

Q: I'm Paul Power (ph) with National Academies. Software and big Pharma are on different ends of the patent system debate and how it should be reformed; in your business model do you think there should be any adjustment, and do you think it should be one system for all industry or maybe sector-specific?

MR. MYHRVOLD: Well, I think it absolutely should be one for all. And as far as our interests, we think there are some very important things in patent reform that have been discussed that we'd very much support. There are also some things we hate. You touched on a very important point, which is different industries view intellectual property in different ways because of their culture and their business model. It's not because they're good people or bad people; it's because a combination of how they make money and the history of how they got where they are. Those two things are what lead to this.

So in the case of the Pharma industry, and I would say medical devices and biotech and other things, they completely rely on the patent system. The exclusivity offered by the patent system is absolutely fundamentally paramount to their investments, and without that exclusivity they would be ill-pressed to tell their shareholders, yes, I'm going to invest in the next Lipitor but I'm not going to own it; everyone is going to make it for free the next day.

In the software industry – I'll be very frank – we started off not paying any attention whatsoever to patents. Patents were never something that added to the bottom line. The way every big software got successful by controlling a standard piece of software. I don't mean this in an evil anti-trust way, but, you know, if you're Adobe – fantastic company; it has a product called Photoshop that's the leading application for doing digital photograph and design, and they're the leaders there. But it wasn't because they had a patent; it's because they got out there in the market and they won. And then once you win, the rich get richer and you stay that way – Oracle with databases; Microsoft with many of its products. So people are successful there without it.

So now the software industry wakes up and they say, "Oh, wait a minute, we never got rich off this stuff, we never ..." – most software companies barely file. They have just pathetically small numbers of patents. As I say, Microsoft used to be that way. I think they announced today that they filed their 5,000th patent or something of that sort, which I'll take some personal credit for, and perhaps blame – you can decide – because I got them on the path of investing in R&D to do that.

Any honest software CTO will tell you his products probably infringe – hundreds or maybe thousands of patents. Some of those may be bogus patents but probably the majority of them are valid, and they don't want to pay.

Now, when I started in software people had that view about our software. So when we started selling application software we'd sell a spreadsheet and we'd ask for \$500 for Excel or MultiPlan, one of these spreadsheets. And many companies, even Fortune 500, Fortune 50 companies would say, "Great, we'll buy one copy and copy it everywhere." And we said, "No, no, copyright, it's important, you've got to do this, it's against the law." And we did a combination of embarrassing them with lawsuits and litigation and education campaigns, where today no major upstanding company in America has large, organized software piracy. That issue, outside the U.S. it still happens. In teenagers and kids and other markets in the U.S. it still happens.

But the Fortune 500 company doesn't cheat. Its IT manager doesn't say, yeah, we're going to screw Microsoft and Oracle. No, they don't do that anymore. But I promise you, they once did and they said, "Why the hell should we pay?" And frankly, the same situation exists in some industries that have a long history of saying, either the benign way, patents were not important me, or the stronger way is to say, look, they just didn't play by the rules. They didn't file their own. Most high-tech companies have a policy that it's a fireable offense if an engineer reads someone else's patent. It's sort of what I call a studied ignorance. They don't want to know what patents they might infringe. And in a situation like that you can't help but infringe lots of patents.

Now, has any software company been brought down by lots of patent suits? No. What are the total losses to the software industry in terms of paying inventors, whether they were legitimate inventors or you don't think they're legitimate? I don't care. Just take all of it. You know, it's a tiny drop in the bucket.

So I don't think that it's unreasonable to say in a system where you have an existing system, where people have a race incentive to get there first, if you're a multi-billion-dollar company you ought to have to run the footrace the same way as everybody else does.

Moderator: Jason, you had a question earlier. Hopefully it's still –

Q: I was going to ask you to discuss NTP/RIM and eBay MercExchange but you've already touched on that.

MR. MYHRVOLD: Well, I think that there is some big – there are some similarities and there are some differences. But there is one other thing I want to say. You know, if you piss a judge off so bad that he writes an opinion saying that you're fraudulent, you ought to settle the case. And that is what happened in the NTP case. Unfortunately we were in a situation where there was potentially going to be a big precedent-setting thing that was based in large part because this judge thought these guys

hadn't put on a good defense, whereas I don't think anything like that has been said about eBay. So that's a fundamental difference.

MR.: Any burning questions remaining?

Q: I just have one more quick question. What do you think is the best patent trademark office in all of the United States?

(Laughter)

MR. MYHRVOLD: Let me think. Let me think. (Chuckles) The United States is the best patent system in the world, from several different perspectives. It's a very important point, actually, to expand on – longest history, best practices in lots of different ways, best bang for your buck. It's a fascinating little thing – if you're an inventor and you want to file in Europe, you actually have to do what's called go to the national stage in each country, and Italy costs you about the same in filing fees and legal fees as the entire United States. And so then does Belgium and Germany, and it just sort of all adds up, whereas here you cover an incredibly big market.

The patent office – one thing I've got to say – not just because he's got all my patents in front of him – but the patent office does get kicked around because it's very hard for someone to come and say, you know, there is a whole bunch of perfectly valid patents held by honorable people that I really have a problem with. It's a very hard argument to make. So one of the things people do is they say, "Oh, there's lots of bogus patents out there; oh, the Patent Office is fundamentally broken; oh, the Patent Office has got this and that wrong with it."

Director Dudas has a hard job, okay? As fast as the technology world changes, he's got to get a government agency to try to change and keep up with it. You know, in this last year they created a new patent class code for nanotechnology. Well, they have to try to hire examiners and stay on top of developments in nanotechnology. But, you know, by and large they've done a great job of doing that. And people who say, oh, there's lots of bogus patents – well, point them out. Just go right ahead. Statistically – it's a fact-based argument you made. Let's actually see what the statistics are on them, and of course out of 3 million U.S. patents, out of patents that sometimes people file just as much for fun as for any business thing, of course there are some you can make fun of, and of course there are some that aren't perfect, but by and large it's the best patent system in the world with the best rules in the world. That's why we've been, or how we've been, successful since Edison's day.

And I tell you, with the best patent system in the world in a 21st century that's going to be about ownership of intellectual property, let's not destroy the best patent system in the world.

(END)

