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The Future of Microsoft, The Future of Technology (Entire Talk)

Steve Ballmer, *Microsoft*

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Steve Ballmer, Microsoft CEO, shares his optimism for emerging innovation in the midst of economic turmoil, and the story of his own entrepreneurial path. He also speaks of his company's continued investment in Internet-ready hardware and software that seeks progress in healthcare, education, and science.

Transcript

I want to welcome you to this very, very special occasion. This is actually part of our normal class. Doesn't this look like a normal class at Stanford? This is MS&E472, the Entrepreneurial Thought Leader Lecture Series. And every single week we bring in really exciting speakers. Normally we're over in Skilling, with about 300 people, but as you can see today we've got about 1700 people in the room. So this lecture series is brought to you every week by the Stanford Technology Ventures Program and by BASES, the Business Association of Stanford Entrepreneurial Students, and it's also brought to us online by the Stanford Center for Professional Development. And one thing you should remember is that if you're ever interested in this and can't come to the class you can always listen to the podcast, or get video clips of it at ecorner.stanford.edu. In fact, I'm going to repeat that, ecorner.stanford.edu, because we're really proud of the collection of video clips and podcasts that we've collected over the last few years. So it is a very special pleasure to introduce Steve Ballmer today. As you all know he is the CEO of Microsoft.

And the interesting thing is, as many of you probably know he started out at Harvard University. And down the hall from him in his dorm, who should be there but Bill Gates. So I'd like all of you to look around and look at all of your fellow classmates and imagine which of these folks you're going to be starting the next big thing with. Because what happened is after Steve graduated, he went off to Proctor &Gamble, and then two years later he came back to Stanford. I don't know if you all know that, but he came to Stanford to the business school. And after the first year during the time he would go do a summer internship, he was asked by Bill to go up and check out Microsoft up north in Washington. So he checked it out and decided, and the rest was history. So I want to introduce this fabulous, wonderful leader who's going to share some of his insights over the last 29 years in Microsoft, without further ado, Steve Ballmer. Steve Ballmer: Thanks. It's fun to have a chance to be here.

I've been in this theater now exactly three times in my life. Today, I gave some speech about five years ago in here and I got a question from a student who suggested that we go borrow a bunch of money. When we had a bunch of money, I had to really think hard about that for like three years. But the first time I was in here was sort of a major moment. I was in Stanford and the play Pippin my favorite play was performed on this stage. And I remember thinking just how awesome this place was and it's sort of fun for me to have a chance to speak here although it's not all what I expected. I'm here in the Bay Area for one reason and one reason only. I was meeting with a few interns Nikil was one of them last summer. He's in the class and he says to me "Come on man, will you come speak to our class." And I said "All right, sure I'll come and speak to the class." And I said, "what's it all about?" He said, "It will be like 50 people something like that and we'll all just kind of chit chat." Then I pick up the paper on the way down here that sort of reminds me what we're doing. What's with this thousand person thing? I thought it was kind of 50 people in an entrepreneurship class but it is nonetheless a delight to be here.

We're not going to get Nikil back for the summer but we're working hard Nikil, Ali, "SteveB" by the way at Microsoft.com for other bright talented people looking for work. We're always hiring even while the economy is tough there's always a place in some part of Microsoft for the most talented folks around. So I'm glad to have a chance to be here and I'll try to talk for 25 minutes or less, and then I guess we have a chance to do some questions and answers at least from I don't know who's the students in the class are or how they tell but nonetheless I guess we get to do that. I'm going to start with just a little bit about the economy. Not because it's the cheeriest or sort of warmest subject to start with, but at least if you're thinking about entrepreneurship it's probably the right place to start, and you say, "My gosh, I am graduating, I am starting a company. I'm moving forward in the worst economy, in whatever 70 plus year is that a good thing or not? Well, first let's start with the basics. It is really a bad economy. Business is tough, people are really being laid off. We had a round we did yesterday. It really is a tough, tough, tough, environment, there's no question about it.

And I'd like to characterize at least for folks at Microsoft that I don't actually think what we're doing, we didn't get down, and we're going back up. The economy is kind of resetting over a year, two years, and three years at a lower level, and then we will build from a lower base. And that happened because essentially the world borrowed too much money. So the question I got here five years ago "should you go borrow a bunch of money?" It's a prescient question. The world had too much debt just as a statistic and you'd say, "why are we talking about this in entrepreneurship?" Because you got to understand a little bit kind of the environment in which you work. But consumer plus business that was about 300 odd percent of GDP before our recent bubble burst. Before the depression it was 160% of GDP. It means we probably at least have one or two GDP's worth of extra money that's been used to fund business investment, to fund startup companies, to buy PC's and flat panel displays and servers and houses and blah-blah-blah. And now you say woosh! All that extra debt is going to get flushed out of the system and it's not going to be replaced. Because after one of these-there's been four of them in the last 200 years of U.S.

history-after one of these bubbles people don't immediately start borrowing again. Everybody is a little more cautious than they were before. So it's a tough economy and you'd say, "Well geez, I want to do a startup. Is there going to be an investment out there? Well geez, I want to sell to customers and they're going to need to buy equipment to do things, or geez I want to appeal to advertisers, and there's got to be a consumer demand out there." Those are so many kinds of ideas that I'm sure swirling at least in some entrepreneurial heads in this audience. And yet in the sense you could say there's really not a better time to start a business. If you got the right idea, you will get some funding. The ideas that weren't good enough shouldn't have been funded and they won't be funded today. So in a sense the fact that there's a more critical screen, there's more of a careful thought process, the fact that customers are pickier with their money today, all of that really is a chance to make people better. One of our folks reminded me, Microsoft was started and Apple was started during kind of a recessionary period. General Electric ironically was started right after the Great Deleveraging of 1873 that was the bubble before the depression that was just like this one.

So in the sense there is opportunity, and there may be more opportunity in the long run even if kind of the entrepreneurial opportunities are less frothy than they might have been in the short run. Particularly as a guy whose business is for the last 29 years has been software, the number of opportunities to create brilliant, genius, amazing ideas, the number of interesting things that we see people doing it continuous to be stunning. So it's not going to be any shortage of real possibility, and so the question is will you have the patience and the tenacity and the interest to really start something that's important. I started Microsoft as Tina said almost 30 years ago. I thought I'd give you my-somehow I'm not pointing correctly-my quote "entrepreneurial story." That's me when I left Stanford. I still part my hair by the way on the right just like I did back then. I did beat Bill Gates at Harvard and our sophomore year in school we lived down the hall from each other. And his friend from high school, they had started actually a company when they were in high school that did software that process traffic tapes. I don't know if you noticed but when you drive down the road you sometimes see these rubber tubes across the road. It turns out in the old days when you drive over one of those it would punch holes in the paper tape in a box at the side of the road and you use to have to ship them back to Maryland and Bill and Paul said "Geez, let's buy one of these new Intel microprocessors." At the time it was something called the "Intel 4004" just to show you how old days that was.

And they started a business processing these tapes for cities in the State of Washington. And then Bill came to Harvard and they still loved microprocessors and Paul Allen wanted to build a company to build computers with microprocessors. And somehow even then Bill kind of said "No, I know what we're good at Paul, we're software guys. Let's not do that." And then finally when our sophomore year in college the cover Popular Electronics Magazine there was a picture of the first microprocessor based computer something called the "Altair." And Bill and Paul decided to quote "write" all the software the machine would ever need. Of course they didn't but they were all some important software for the machine. And the company got started and was kind of purring along. We were 30 people when I joined. There were no business people. It was all programmers when I joined the company. In 1980, I came in to quote "be a business person" whatever that meant.

Didn't know much. Frankly all I'd ever really done is interview for jobs and market Brownie Mix. I wasn't exactly well credentialed. I'd taken the first year at Stanford Business School so I can read a balance sheet that was pretty important. We didn't have that much money back then so there wasn't much to read. But anyway those lessons were important. And then

from there we kind of we just kept grinding and grinding a few bits of inspiration, a lot of perspiration. I just spent an hour with a group of Venture Capitalists and they said, "Hey look, if you're going to tell entrepreneurs. I said, 'Look, I'm going to go talk to some entrepreneurs,' what would be your lessons from the early days?" They were simple, hire good people. We actually didn't have our good people when I started.

Bill was good, there were like four or five very good people and I went in to Bill's office after I'd been there a month or so and I said, "We've got to hire 18 more people," this is on top of the 30 that we had. He said "Steve, our people are even very good, why do you want to hire 18 more? And you're going to bankrupt us. Go back to Stanford or something but don't stay here unless you're going to do better than that." And so we just really worked hard getting good people, smart people. Tina was joking around, look around at the people you know because people you know at least in my case they end up super important, the initial programmers at Microsoft are people who grew up with Bill. We brought in people we knew from college because those are the people you know and you trust if you start something. But good people and then a lot patience. I think a lot of entrepreneurs think that things happen quickly. "Success is 90% inspiration, 10% perspiration," it's much more balanced than that. It's great idea with a lot of hard work and then you work at it for year, two years, three years, four years, five years, six years, seven years, eight, nine, 10. Some things that actually wind up being really important take more than 10 years to get popular.

You wouldn't believe it reading the Popular Press but it's really true, it's really true. It's true of Windows, it's true of the Sequel Databases from guys like Oracle, the Google guys were at it for a number of years before that thing really took off. There's a few exceptions, but most things you can really grind on and certainly that was kind of the history of Microsoft in the early days. We had some products, we were a tiny company. My parents thought I'd lost my mind to drop out of Stanford Business School to go join some company that made software. I said, "Software for personal computers mom, dad that's why I'm leaving the hallowed halls of Stanford." And then my dad said, "What the heck is software?" And my mother said, "Why the heck would a person need a computer?" Well, ok we're talking about 1980 and life was a little different in 1980. But it's those kinds of questions that, there's a little bit of spark, there's a little bit of a powerful force and there's just a lot of hard work to get from here to there. If you say today, "Ok, is all the good stuff in the days gone by?" This is one the questions I get a lot from people who just staring out and say "Wow, technology has changed so much last five years, 10 years, 15 years, 20 years." Are all the great companies created? And the answer is no, not even at all. The truth of the matter is if you look at the technology industry, there's always a few big guys, some medium size guys, lots of small guys, and the names are always changing because the industry is so darn dynamic, and there's so much new stuff being invented. The way chips work is changing completely as we speak.

You're able to get bigger and bigger displays at cheaper and cheaper prices. I didn't check this one out before I walked up here. Look it's just a piece of plastic, it doesn't know a thing. I can touch it, I'm not controlling it, it doesn't recognize me and say, "Hey Steve, stop beating on me." It doesn't see me, feel me, speak to me I don't know, there's some song that sounds a little bit like that. But that's the future, that's where things are going. Today, you learn to speak the computer's language. If you want to write programs, you learn to write programs in the computer's language. If you want to control a program file, open, copy, paste not get me ready for my trip to Stanford. My secretary is able to process that command, my computer cannot process that command. The kinds of things that are going to be invented over the next several years is just to me outstanding, and particularly for somebody who's got skills in software.

You don't even have to be interested in the tech field. Software is going to change so many fields. It will change energy, environmental science. The impacts of software will be broadly felt. So I'm a bit of a zealot on that as a particular expertise. But the chance for entrepreneurship is really, really high. We live in a world where I think things are really also changing based upon the fact that we're still quite early in the presence of the internet. People say "Well, the internet we've had that for 15 years, so much has been invented," and yet really the whole world of technology is being redone as we speak. Technology grew up with the computer and now it's the computer, the PC and maybe the Smart TV. The computers, phones and TV's didn't grow up assuming the internet.

And frankly the internet didn't grow up assuming Smart PC's, phones and TV's. And so the whole model of how software get's written to one intelligently on PC phones and TV's to talk to the internet Cloud, that's all going to get redone. Since I have been at Microsoft, the basic paradigm for how software get's written has changed a few times. Mainframes, PC's, client server, internet, and now we're in sort of a new Web 2, Web 3 kind of generation. Smart Phones, Smart PC's, Smart TV's talking to a Smart internet. And that creates a whole generation of opportunity to disrupt the businesses that are out there to create new businesses that people couldn't dream of before. We talk about the Cloud. The cloud is kind of that smart internet presence talking to those Smart clients. A lot of people sort of question the fact what we'll we continue to need Smart Phones, Smart PCs etcetera, and the answer is yes. Yes, people, will actually want to get the best they can get because this stuff is so darn cheap.

Bill Gates when he started Microsoft said, "The hardware represents a form of free intelligence. We just have to have the software to switch it on and that opportunity still exists." Your world needs to be brought together, the consumer. You have one

identity on the phone, you got another on the internet, you got another at work, you got another at home. You may want them separate but you may not want to manage the cacophony of things that you deal with today. Now just take contacts, how many different places do you have to update when somebody switches homes, switches phone number. Just how many different places do you go touch. Just simple things so much to do to improve the overall experience people have with these things. See I wish there was a camera in that darn screen. It seems to have a distance factor. Anyway, at Microsoft, we're investing aggressively across the spectrum.

Touch, voice, natural language input, Smart Phones, Smart PC's, Smart TV's. We've introduced a whole new platform for writing Smart applications in the internet, a new version of Windows that we call, "Windows Azure." Our company this year will invest over $9 billion in RD. You can't process what numbers like that mean. I can't and I deal with them every day. It means we've got about 45,000 people involved creating software and perhaps most importantly we will invest the same amount of money the next 12 months that we did with the last 12. We were going to increase it. Because of the economy we won't. But it sure reflects the fact that we've got fundamental optimism about what can be created. Now Microsoft is sort of a funny place, we've got these big businesses but in the software business big businesses need to be constantly recreated. A product like Windows is in a sense only as good as it's last release or two.

It's not just its last release but it's the last release or two. And so we need to have this mix of sort of-thank you da-da-da-da-boom. Anyway, moving right along. I kind of knew what I was doing when I walked down that road but anyway-you need to have a mix, even in a big company, of smaller entrepreneurial projects, bigger entrepreneurial projects. It's not like running a factory. It's not like running a bank. It's not like running a retailer not just Microsoft but nobody. In our business, you got to be inventing new things because software doesn't wear out, it doesn't break, or at least if it breaks it was broken when you finished it, it doesn't break over time the way physical goods do. And so the opportunity and need to invent just like any other startup or entrepreneurial activity remains strong. So we're investing.

Venture Capitalists, there's going to be less Venture Capital this year than last year. There's still probably in my opinion more Venture Capital than there are really good ideas to absorb the Venture Capital. So whether you're going to join a start up, whether you want to start a business yourself, whether you want to join a company like ours, I think there's just incredible opportunity. We want to be kind of a partner and friend to people who are starting these businesses. We've made our tools now free for students, for startup companies, qualified startup companies. We've made our software free so we can bootstrap entrepreneurs who want to come with us and help pioneer and really pursue the future, the future for students, for consumers, for businesses, for the full range of things. I hinted at it this earlier but I really want to come back to this notion that the range of innovation, you live in almost a better time, you're coming out of school at a better time than Bill Gates and I did because the power of information technology to give new innovation possibilities not just in technology itself but in science, in health, in education is unbelievable. You're able to model today the physical world with computers in a way that was never possible before. People say we have an energy problem, what's the answer? We need better software, whether you believe in oil and gas to simulate, or whether you need netter tools to model what can happen with new forms of energy, software accelerates the process. Pharmaceutical research; software accelerates the process.

Education, education is the one industry that never gets more efficient. This is not a slam at Stanford or other fine educational institutions but in a sense everybody says, "Hey, the only way to get more efficient is to actually have bigger class sizes and yet people resist that." So how do we use information technology to actually improve and measure in advance education? Health care, I think everybody can understand that health care needs to be reborn and reinvented, and information technology is it the key of what doctors and nurses and other health professionals really do. So I think it's just a phenomenal time to be starting all kinds of companies. And I think leveraging and building on the kind of software that our company and our industry provide is just a great, great opportunity. I just want to end on this notion of good times. These are tough economic times, but these are times that I think are rich in opportunity. In a sense I'm going to make kind of a radical statement. When I was a student here at the business school, most people wanted to become consultants or investment bankers. Those were the hot jobs. I love consultants and I love investment bankers.

But consultants don't invent and most of the products investment bankers invented are somewhat discredited in the current environment. Entrepreneurs who invent, who create will really add to the level of innovation, the productivity in the economy will change the world, will create economic value, will drive jobs, and will have a heck of a lot of fun doing it. And so I think despite everything else, now is the time for people who care, who want to invent, who have skills in specific scientific and information technology areas. I think now is the time and certainly I hope for many of most of you who choose that path you'll do it with us, working with us, partnering with us, building on our tools and technologies but I certainly wish you all the best if you choose to take that path and as I said, if you're looking for something from us, steveb@micorsoft.com shoot me a little piece of email. Pleasure talking to you, and I look forward to questions. Host: Ok, which chair do you want? Do you have a preference? Steve Ballmer: No, I'll go to this one. Host: Ok. This is how it's going to work. Since this is a class, the questions are coming from the students. I'm curious how many students are in the room? Can you raise your hand if you're a student? So look it's almost all of them.

How many of you are from the school of engineering? It's almost all of them. Great! So what about... Steve Ballmer: MBA's? Host: Any MBA's? A few of you snuck in here Steve Ballmer: Investment bankers? Host: One. Steve Ballmer: I only offended one, no, two people. Host: Good! I'm just curious how many undergrads? Wow, that's almost a whole group. What about graduate students? Almost the whole group. I don't know, I think double counts here Steve Ballmer: There must still be a coterm program here. Host: Exactly! Ok. So the first question will be over here. So there will be a microphone that will be moving around to the questioners.

Audience: Steve, this is a question for you. So far I have worked in only the big companies. I've worked in HP, Intel, IBM and now Oracle. So when you are hiring senior managers for your team, how do you evaluate the big company experience versus the small company experience? Steve Ballmer: Yeah, I think there are both helpful and depending on the job, and depending what sort of the portfolio of experience is. If we want to take somebody and say look, "You've got to run a very big project," and let's say a big engineering project, and somebody's experience is only doing small engineering projects, that's a nail biter. You got to really think about it. On the other hand if you take somebody who has only run large projects and say, "Hey look, you've got to lead a smaller team." That too has a real risk portfolio associated with it. We talk about starters and finishers. We talk about pioneers and settlers. Nobody is really all one or all the other thing but people are shaped by their personalities, they are shaped by their experiences, and in fact we benefit from all of these types of people but in the right job.

When we went outside recently, to higher the fellow who's running our search business, we got exactly the right person. Somebody of experience deeply technical which was super important and had run large engineering projects because that's absolutely critical. On the other hand, Ray Ozzie who joined us as our Chief Software Architect which was Bill's old title, he'd spent a little time at IBM very short. He'd been an entrepreneur. He'd done startups but he has a different kind of role in the company. So you want to blend those things I think pretty well. Promoting from within, hiring from out, big company, little company. A good company in my opinion has got to nurture all kinds of people and all kinds of innovation because the world is not let me say mono-culture. Host: Great. Next question is over here.

Audience: Hi, I'm Oscar. I have a question regarding if you briefly explain what your browser strategy is given Facebook and search as well. Steve Ballmer: Well, browser I would say has a couple of different - let me give a couple different aspects. Let me start with the browser itself. I think browsing will continue to be an area in which we'll expect the innovation in two ways. The browser platform, that is the ability of the browsers to run more exciting, more capable applications that will continue to climb. I think people do expect even if you want to go beyond the standards that things will only precede in large measure at the speed of standard support which is a little harder for things to move. There's now what 43 million websites something like that, I mean it's a huge number of websites on the planet. They can't be all upgraded, they can't all take advantage of new browsers but the browser platform is going to move, we need to innovate the browser platform. Then the browser UI, there's really a lot of innovation still possible.

You look at some of these kinds of things we did with accelerators and slices, and our browser competitors are doing their own thing. The ways you work with history and integrate search there's still a lot more innovation on the UI. Now we have a browser that is absolutely regulated, it's a part of Windows and therefore it's subject to our consent decree. So whatever we do on the browser we're going to have a clean interface between our browser and our search service, our browser and our own sort of social networking software Facebook etcetera. But I think we want to design the browser to allow this notion of a social graph to allow this notion of the search database enhancing the browsing experience to be built in. In our own case, we won't wire it in. Some of our competitors might wire it in so that you're bound to their entire solution. That can't be our approach. Host: We have a question back up there. Audience: Hey, so earlier you talked about that you thought that there was too much money chasing too few good ideas or at least too few good companies.

In your mind what's the fatal flaw of preventing those companies from being good. Is it idea, is it execution, what do you think the big problem with the company is that you see is incorrectly funded? Steve Ballmer: There's really a really bad idea that gets funded, ok. So let me not say that, that wouldn't be right. On the other hand, there's a higher percentage of companies that don't sort of let me say make it. I don't mean make it always in terms of an IPO but have a long term life. And too many companies can actually hang on for almost too long with too much money because there has been so much money funding these ideas. At the same time you will get not just the second or third implementation of a good idea funded. You've been getting the fourth, the fifth, and the sixth implementation of a good idea funded. You know my best way of measuring this is what's happening now is the contraction and money. Is there a perfect amount? Let's say there was four times as much Venture Capital, would we have four times as much innovation? I don't think so.

You'd have four times as many companies but you might not have four times as much valuable innovation. On the other hand, if we had a quarter as much venture capital, I think that would be in the sense the world would contract too much. I get to ask a lot to actually buy our CIO customers. They say with the contraction in Venture Capital doesn't mean we're not going to get good solutions to the business problems we face. I don't think the contraction is dramatic enough that we're not going to continue to see most really strong ideas will get funded and reasonably well funded. Host: Another question. Audience: Steve,

Walter here. You've convinced me. I'm going to go start a company. Now...

[Cross-talk] Steve Ballmer: Just make sure you build it on Windows. Good. Audience: Sure. Now the brilliant folks here at STVP have warned me. Everything you do especially in the beginning of a company will shape the culture of the company forever. Now I've seen you twice before, not personally, on the internet. Steve Ballmer: Did I look good? Go ahead sorry. Audience: Once working a sweat and saying, "Developers, developers, developers, developers," and one getting really aggressive and like throwing the chair. Now these are very unique cultural things which are not necessarily bad. But one thing I want to understand, to what extent do you feel that you have shaped Microsoft culture? And two what are your biggest satisfaction and regrets on how you have shaped this culture.

Steve Ballmer: Yeah. I'd say I feel I've shaped Microsoft culture a lot. For better and for worst, and Bill and I together. I mean it's not like a couple of parents I would say. You know Bill, we shaped each other because we kind of in a sense grew up together and known each other since we are 18, 19 years old. We grew up together. We shaped each other, we shaped the company, the company shaped us, and then things moved on. You can always say, "Hey, I wish we are more this, I wish we're more that." And at the end of the day the ultimate test is whether you're able to get done what you want to get done, or what you think the market demands from you. And we've had our successes and we certainly have had our challenges. The thing in the sense I find in our culture has been the most dynamic tension is between, I talked about patience and tenacity and sticking two things.

That I think is a real virtue but it can come at the price of demanding short term accountability. So you have a tradeoff almost it's almost like a Yin and a Yang. Patience versus short term results and you actually want to have both of those in proper balances, and we're always kind of struggling. It's like you want passion for technology but you need passion for customers, and you got to get kind of the Yin and Yang. You want to be people who really want to be great individually but you also need good teamwork. And I think sometimes on the teeter-totter of each of those three dimensions were teetering where I wish we were tottering a little more as our products are more complicated. And we want to have more interdependency because customers are insisting. There's even more Premium on teamwork as opposed to just individual stardom. You have to balance the culture. I talked already about tenacity versus short term results.

Passion for technology and customer you always dealing with even from the time you're a tiny startup. So I think at least in our own case, it's not that I wish things were different, but I know we have to constantly balance and reinforce and build and sort of reinforce the behaviors we need in whatever business at that point in time. Host: Great! And we have another question. Audience: Hi Steve. I appreciate you sharing about your early days. So what was the reason you dropped out without completing your degree and then joining Microsoft or whichever the options and what about the initial funding in your case how did you manage that when it was difficult? Steve Ballmer: Yeah, it was funny. I was a first year student and happily minding my own business, getting ready to try to pick a summer job. Bill and I gone to school together, Bill dropped out. We had stayed in touch. I actually went off and visited Bill up in Seattle the summer before I started at Stanford.

And I was trying to make a final call on the summer job and Bill called and said "Hey look Steve. Geez, how are you doing? Gosh, things get complicated here we need a business person. What about you?" And I said "Well, Bill you know I'm in school." And he said, "Too bad you don't have a twin." And I said, "Yeah, too bad. Goodbye." And then I thought about it overnight and I said "Geez, Bill is the smartest guy I ever met and I can't say everybody I ever worked with earlier at Proctor &Gamble I was with the smartest guy that I ever met. I didn't know much about computers and I didn't know much about software really. I'd written a couple of programs in college and high school but I said, "I should at least check this out." And I called him up and I said, "Look, I'm going to go check out these other summer jobs but then I'll come visit you." And ultimately what I went out deciding was it was terribly low risk. I could go. If things weren't working out by the end of the summer he'd fire me and I go back to Stanford for business school, that didn't sound too terrible. If things didn't work out long term, they still have a spot for me I think if I want to go back and finish my MBA it's just not that high risk when you get right down to it. I didn't have any bills, I didn't have any family, what was the risk? And so I said, "I'm dropping out and my friends many of them thought I was nuts.

There's couple of professors who are still over there who told me I was nuts." After a month I agreed with them, I told Bill I'm quitting, going back to Stanford. And Bill said, "No, you're not you don't get it." And our motto is something he actually said to me to get me to stay. He said "Steve, you don't get it. We're going to put a computer on every desk, in every home. You didn't drop out of business school to be the bookkeeper of a 30 person company." Got me to stay and in the sense you could say after that point I never really looked back. It wasn't what I saw for myself. When I went to Stanford, I would have told you I would have been a consultant, an investment banker or I would have gone to work for a big company in fact that was interviewing for a summer job with Ford where my dad had worked and so I thought of myself more as a big company guy and 29 years later I am a big company guy. Host: Great. We've got a question up on the top here. Audience: Hi, so there are some other companies that are getting an increasing share of the search traffic market.

And Microsoft is doing a good job in investing in smart people to increase the live search product. Nevertheless, being a student I noticed that Microsoft closed down their book search and academic search product not long ago. I was wondering in

spite of these fall backs, what is Live's strategy in general and in improving their search and specifically in academic sector, and do startups and their innovation in terms of being partners or acquisition targets play role in that at all. Steve Ballmer: Well, we're not just sort of number two or number three player, the number one player is a lot bigger than us. And they're a lot bigger actually than Yahoo! Google is a very big company, in search. And therefore we are more like a startup than we are like a big guy in the search market. We can't invest in everything the market leader can. We're not going to be able to just outdo and outspend somebody whose revenue is many times bigger than ours. And that's why it's painful as it was we said "Hey look, if we're going to do anything with book scanning or academic we're going to have to do it in a different way than Google is doing and that's a path we're choosing. There's some things you got to do to be competitive and there's some things I think we have an opportunity to do precisely because where not the market leader.

Because we're not the market leader we can experiment with new business models like Cash Back because we're not the market leader, we don't have to stay locked in to the current user interface for search over time. The user interface drives click through rates on ads which drives revenue, and so we have the luxury, the flexibility like a startup does to try more new things. In fact, there is a certain cost of entry but we're going to have to be more disruptive in the way the user and business model works and we know we're nonetheless going to have to be more patient and show the right blend patience and insistence on short term results. Yeah, I think there's a lot of big wall for startups. We've done some acquisitions. We bought a company here in the Bay Area called "Powerset" that does natural language technology, great addition for us. I think the way we partner with content companies and other websites, we have some unique opportunities because we have less revenue. We have less to lose than the market leader does. It's another way to be different in a way that could be good for partners and for consumers. So we have a number of things and you'll see it released by release as we move forward some of thing that we're working on.

But we're going to have to be more like a startup than more like the big player despite the fact our search group is part of a big successful company. Host: Over here another question. Audience: Hi Steve. So earlier in your presentation, you're talking about that it was a great time for innovation and all these ideas were happening and I'm sure you'd seen a lot of these ideas happened over your years at Microsoft. So I was wondering how you learnt to differentiate and characterize these great ideas when they come. Steve Ballmer: Sometimes well, sometimes not very well. And I actually think it's probably important for anybody who wants to do a startup, anybody who wants to join a place like Microsoft and work on an established or a new product. I'm sort of like a mini Venture Capitalist in a weird way because I have to sort of be part of the process of picking which ideas our own people have that we should fund, which new products, which new ideas, and I think in the sense you got to have a clear sense of what your core competence and core strategy is. And then you've got to be willing to do the things you must do. There are some things we absolutely must invest in.

Natural language, speech, and voice are going to be fundamental to the changing UI, and we have to invest. Whether we make mistakes or not, we got to keep after it. We have to change the approach if things aren't working but we have to keep after it. We'll try some new products that are disaster. The one that everybody likes to tease me about from times gone by was a product we use to have called "Microsoft Bob." Microsoft Bob was kind of like a low end Word processor and spreadsheet but the screen look like a house and this dog walked around and talked to you about writing your book reports or something. I mean it wasn't terrible, it was sort of a precursor to what people are trying to do now with sort of 3D virtual worlds type user interfaces. It flopped miserably, but I'm glad we did it. We didn't lose so much money that I say to myself "Boy that was a real mistake." Because a few of those, it only takes a few of those to become something important to really make the company. So clear sense of your core competence and direction, intelligence and understanding not only with your own people are doing but what's going on in academia and in startups, and then the willingness to take some risk that would be what I'd say. Host: Good, next question.

Audience: Hi boss. I'm Sumir Solomon. I'm interning at Microsoft this summer in the Virtualization Group. Steve Ballmer: Stop by Audience: Sure. I'm also working in collaboration with the Azure Group this semester on hosting a project Cloud Application basically on Azure. Even though it's in the beta phase, our experience has been great with it. My question is how much attention and resources are you going to give in the future for Windows Azure and what are your expectations about how will it grow, and will it be as successful as like Microsoft Windows XP for example? Steve Ballmer: Yeah. Moving right along. I don't know if anybody ever saw this movie called "Three Men and a Baby?" It was kind of 80's movie but the world is now going to be three screens and a cloud: phone, PC, TV, cloud, three screens and a cloud. And so when you're asked what the future is of let me call it "computing of the future?" Because our basic business is providing computing platforms, that's where we grew up, that's our roots.

When the lady says "You got to know what you care about," that's what we care about. So phone, PC, TV, Cloud and Windows Azure is at the backbone of the Cloud Strategy so its super important to us. It also represents a good part of the future of our Windows Server Business and our Sequel Server Business which are billions of dollars in aggregate revenue for us. So it's both sort of the future of the existing businesses and it's an opportunity to go create new businesses so it's very, very important. You don't get the name Windows around Microsoft if you're not important to us. It's an important part of our strategy, it's an important part of our future, and actually I think I hope it's an important part of the future of many people here who write

software either as Microsoft employees or as our partners going forward. Host: I got a question over here. Audience: Hi Steve, my name is Ed. My question is sort of about risk and also about experiences. So you talked about before the big companies, small companies.

What if someone takes a big risk they do a startup, it doesn't turn out very well but it wasn't because they weren't smart about things, they did their best. How does that power up compared to just going the safe route? Have you got some tips on, obviously you took some risks so what would you should say about that? Steve Ballmer: Yeah, are you talking about like in a career planning type sense, what are you saying? Audience: I was saying if I take the risk and I go for a startup and I turned down some really good job offers I've got at the moment. Later on it's that going to come and bite me if the startup doesn't go well, or will the experience from the startup still help me get there in the long run even though it wasn't successful. Steve Ballmer: I mean valuable experience is valuable experience. There's nothing actually I would say startup experience is neither more valuable nor less valuable. People want to say that startup experience is more valuable or big company. Hey, if you dug in to something, I don't care if it was a small company or a large company, the key at least to me isn't where you were, it's did you dig in. Did you work your butt off? Did you perspire? Did you force you brain to really think and have peripheral vision? When I ask somebody like to tell me about what they did? I don't care where they did it, I want to know did their brain fan out, or where they just looking at a narrow little piece, or were they're really thinking broadly? Did they think comprehensively? Could they be concrete about what they did and what they accomplished? If things didn't work, can they be honest and direct big company or small company. This didn't work, that didn't work. So that'll be the kind of thing that is important to me and I hope to the folks who work for us who are evaluating and looking at people.

Certainly I think in most people's lives, it's usually interesting to have some experience in bigger environments and smaller environments. You learn differently from both of them. As I said earlier, I got my big and little all in the same place which is unusual. But at the end of the day, what I tell you most is to just dig in and love what you are doing. And if you love what you are doing and you work really hard at it, and you really embrace it heart, body, and soul, and I'm sure it matters too much. I think the biggest mistake most people make when they pick their first job is they don't worry enough about whether they'll love the work, and they worry more whether it's a good experience. There is a time in your life generally when - you might pick a school that's good for you, and you make pick a second school because it's good for you. But by the time you are picking jobs, I'd really think you'd got to pick a job because you really think you're going to love doing the work that you're doing and it's a mistake not to. Host: Great! We have a question in the balcony. Audience: Hi Steve, this is Curran one of the few MBA students in the room so two quick questions.

First question on the bid for Yahoo! What was the rationale behind it and where do you see going forward especially with Oracle acquiring Sun recently. So there's some consolidation which is happening in the industry. And second... Steve Ballmer: Yup, that was two ok. Audience: The second question is more to do with your R&Dbudget and using $9 billion but what's the vision? So budgets are fine but Microsoft has not been doing a lot of breakthrough innovation in the past so where do you see Microsoft taking the lead over the next two or three years? Thank you. Steve Ballmer: Yeah. First is as to Yahoo!, it's a long and sort of saga, but at the end I'm glad we went down the road. At the end of the day, I think it would have been valuable to get together but it didn't work. I still think there exist opportunities to in a sense almost create a better search product by having more customers and more advertisers to generate more relevant advertising as part of the search offering. That may or may not at some point happen or may or may not be appropriate discussions I don't choose to comment on that today.

Your second question, at the end of the day I'd first disagree with you. I think we've have done a lot of innovative things over the last several years and yet so have others. And I think it's sort of one of the important things to remember. Last five years brought us XBox Live. It's the most interesting interactive entrainment thing to come around in the last five years. I'd say other guys have also done very innovative stuffs but we've done good innovation. We've done good innovation in the business space. We have a product called "SharePoint" which probably is not a soul in the room knows about. Thank you four souls in the middle, probably worked in IT, no I'm teasing here in the university. It's gone from nothing to over a billion dollars in five years.

Because it solves fundamental problems in the way the information get's managed inside corporations. It's not a consumer sexy product but there are many cases like that. You take a look at what we did with the user interface of Microsoft Office in the last release. And it's different but the discoverability, the change in UI and what that means not only to what we do but the way people are now following that is quite big. Will I give credit to - did Apple do a nice job for example at the iPhone? Of course they did a nice job with the iPhone so you give credit. Is Facebook an interesting concept? It's a very interesting concept and we are a partner we've invested money. And there are many other things that people can also get excited about. We've done our fair share but of course I'd love to do more. I would have loved to do a higher percent. We've got people working away again on other future oriented things.

Host: So I understand we have time for one more question and I'm going to take the liberty since I'm sitting here to ask it. Steve Ballmer: Ok. That sounds fair. Host: Flashback 29 years ago, and put yourself in the seat here and pretend you were still

in school. What do you wish you had learned when you were in school that would have been really helpful to you during your tenure in Microsoft? Steve Ballmer: Ok. There were some things I did learned that were fantastic ok, and there were some things I didn't learned. I wish I had taken more computer science classes. Be honest I mean, I wish I had, or if I was going to go in another field I wish I have taken more environmental science classes. At the end of the day, I wound up starting in Math and Physics at Harvard, finishing an Applied Math and Economics and doing business. But real useful things that let me have a deep appreciation for the side I wish I had done more.

Second thing I would say that was valuable "Thank goodness, I did one year at Stanford Business School and learned how to read a balance sheet and understand the basics of cost accounting which is not mathematical rocket science. It can be but it doesn't have to be. But I'll tell you, there's a basic language of business that is super useful to be able to speak, and a little bit of book study really goes a long way. Last thing I'll tell you probably the two most important classes I did take and both by luck. When I was at the business school here I took a course which you can take first or second year in business strategy or something like that, business policy. And there's like a few nuggets that just ring in my head. We studied some case about Kodak and Polaroid. And it talked about what the market leader should do versus the weak number two player in terms of how you vary cost and investment, and expenses and business models. I still quote from the darn case all the time to our people in high share businesses and our people in low share businesses. But absolutely the most important class I've ever took which was random that I signed up for it was when I was an undergraduate I took a course on Managing Arts Organization, and it talked about how managing the symphony, the newspaper, the ballet, it's different than managing corporations was the theory because reporters don't always focus in on the profitability of the newspaper and ballerinas don't always care about the profitability, and there's some assumption that business people and people who work in businesses always do.

What I found is in any tech business, engineers and scientists are awfully darn important, and engineers and scientists probably think more like oftentimes like ballerinas and innovators. It's the science, the innovation in and of itself independent of the business schools are far more important. So some of those soft kind of think about a way to manage and work with people's stuff. I lucked into it but I'd certainly encourage everybody to get a little bit of a flavor of the people's side, the language of business, and the science. I think that's the let me call it "the triple crown of preparation." Host: Did we pay you to do an advertisement for the Stanford Technology Ventures Program? In fact I don't know if I actually highlighted that Tom Byers and Cathy Eisenhower who are the other two leaders of the Stanford Technology Ventures Program. And I want to invite all of you to come to all of our other classes and Entrepreneurial Thought Leader Series which is open to everyone. And now I want to invite up the two students, Nikil and Ali, who had a presentation from the Students of BASES. Nikil: So on behalf of BASES, STVP, and ASSU Speaker's Bureau, we'd like to thank Steve for coming today and just one more round of applause for an awesome talk. Steve Ballmer: Thanks a lot. Thanks everybody.