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Moderator: Dr. Eric Schmidt, Chairman of the Board and CEO of Google. Since coming to Google, Eric has focused on building the infrastructure necessary to maintain Google's rapid growth. Previously, Eric served as the Chairman and CEO of Novell marking a 20-year record of achievement as an Internet strategist, entrepreneur and developer of new and great technologies, Dr. Schmidt?

Eric E. Schmidt: Thank you very much Governor. I completely agree with what Randall had to say and I would like you all to think of information technology in a very different way. I would like you to think of it as a way that people can actually change their views of government. We are now at the point where the quality and the way in which your information technology services work for your citizens will fundamentally affect how they view, not only your leadership, the government as a whole, because unlike many other people in our government worldwide, the buck starts with you guys. You actually run these places and you have tremendous services that you offer. It is also clear that broadband as Randall said is about to cross a tipping point. We are at 50%, 60% overall penetration. AT&T and other companies are leading this way and they are doing a great job. As it crosses the two-thirds point of actual usage in American homes, it will become the first place that people go, that their businesses would be built on. And I want you to think Internet first, not second or third or fourth because that is ultimately how you will transform your fundamental machine, which is serving your citizens and really change the world.

It was nice about this, "Think Internet First" message, is that the United States is the leader in the Internet. So, we have all of the positive benefits of both investment that you make in your states, the creativity in your universities represented here as part of our leadership taskforce and the great story that is the American dream in entrepreneurship. Now, most people when they think about the Internet, think about as an example, YouTube, and candidates and you all have looked at this, and indeed there is a big debate on Monday and a subsequent one in September in Florida for the two major parties involving YouTube. What people do not appreciate is how fundamentally the Internet is changing the normal course of business. It could be the numbers. The Internet, by far the fastest growing piece of media technology ever three years to get a $3 million UF, 50 million users took 37 years to do the same thing with radio and television. There are more than 1.3 billion users worldwide. We are adding a couple hundred million in a year now, and most of those, of course, outside the United States.

The mobile phone growth…when I travel and…Randall and I do this really often, what sound do I hear? I hear the sound of mobile phones ringing. It drives me crazy sometimes, right? It gets at all of us. He loves it, alright. It is a perfect outcome, ring, ring, ring, ring, and it is of even greater impact to have American-led technology changing the world, and the numbers are fascinating. More than 2.5 billion phones, again growing on the order of 400 or 500 million a year. This is all being driven by something called the Moore's Law, which you have heard about before roughly, doubling the density of chips every 18 months. There is another law called Kryder's Law, which says that storage power is increasing by a factor of a 1000 every 10 years. So you say, "Oh! No big deal". This has some pretty extreme implications. In the year 2019, you will be able to have in your iPhone or equivalent 85 years

of video. So, when you are born, we can hand you this thing, and you will never be able to watch all the video in your device until your death.

The rate at which this consolidation of data storage and computing power is changing our world is breathtaking. Now, my observation is that people, everywhere pretty much want the same things. They want good family, good health. They want safety, security, happiness, prosperity and they have a lot to say, and they are going to say it in this new medium, whether we like it or not. The statistics are phenomenal. There are more than 70 million blogs that exist today, about a 120,000 blogs being created worldwide each day, so, no one is reading them except for the author, I guess. 76% of US Internet users over the age of 15 initiated a video stream monthly. 75% of the users 18 to 25 are reading or writing user-generated content as this is called and a few of them are passive participants, and last night in our, in Arbor office where we have a nice big operation, I asked a survey, "How many of you have a home phone?" It is a very strange question to ask, and that was clearly the wrong question, so I said, "How many of you do not have a home phone?" 90% of the people raised their hands and said that their only phone is a mobile device, gives you a sense of how rapid this change really is occurring. When you think about search, which is the business that Google is in, it really fulfills the human need for information, and of course this is growing very, very, very dramatically into billions of pages that we index, and the many 100s of minutes of users that we service have to deal with this all the time.

Our next product is really about personalization. Here we are, in Michigan you do a search for Wolverine. Now, you are talking about a sports team or you are talking about a particular marsupial. We need to know a little bit about you in order to do that, and we now have algorithms and techniques where we can sort of more of less figure out whether you are a sports fan or whether you are really very interested in science, and if you are both, maybe we will be a little bit confused. We are trying to close the gap between what I want and what I typed, and to me, Google has really built around high moments. For me, the high moment was, I have always wanted to climb Mount Everest, which if you look at me is currently not going to happen. So, I took Google Earth, and started at the bottom and I climbed right up to the top in the safety of my office, and I had a great view. You cannot do that without these kinds of technologies. There is another example. All of us give a lot of speeches, and I was told that the problem with speeches is that the microphone rubs against your…everybody knows it, right? So, how do you solve this problem, you tape it to your skin. How do you do that? You get double-sided tape. It is made for wicks. Now, where am I going to buy this? How would you find out where to buy it? Well it turns out you can use the search engine and you will find there, in fact a whole industry of people who make this sort of thing. I never knew I needed this product, and I now I have to have it. What is interesting about…all of these are high moments, and Google has really built around high moments, is that they really do create trust and then trust between ourselves, company, the end-user and their searches and information becomes paramount, and this is another issue, which you all are going to face. How do people trust the Internet? In our case, we have changed our privacy policies. We do not keep logs more than 18 months, the cookies that we put in place which are technical term expiring two years and other things like that. But the important point is, you will face this, everyone is online, how…what is the privacy? What is the trust factor? Do they believe you? Is it really true?

If we look at information and mass innovation, it is having a lot of other interesting events. The fellow who runs Venice Whaler did not like a particular television station, so he banned them. So now they are

rebroadcasting on YouTube, very interesting. Please do not tell him, I do not want him to shut down YouTube. This process makes governing both harder and more, I think, exciting. It is harder because you have to some degree less control over the voices, on the other hand, you have the ability to listen to them, and you can imagine that not only can Google, for example, track all of the things the politicians say, that do we agree, disagree? But we can also give you information as to what people are thinking more quickly, and then you can decide what your view is and how you should react to it. This phenomena, this phenomena of jumping to things is really occurring very, very quickly. It may very well be the next Watson and Crick, co-inventers or discoverers of DNA might meet online instead of a university, and we want them to be in US Universities, talking to each other over this broadband network, that Randall and others are trying to build.

So, what should you all do? Encourage the expansion of broadband. We are 100% in agreement with this. It is the basis of so much of the future of America. The only analogy, and it seems obvious. It is here we are in a beautiful part of relatively rural Michigan. How do you get here? By a highway. What do you do when you are here? You got a new broadband network and you have access to the whole world. You then say, the highway system is the 1950s analogy; this is ours. By making information available you can finally cross this issue of the opacity or lack of capability of governments. We have a project generating on the site maps. We have projects with states. We have done this, for example, already Arizona, California, Michigan, Utah, Virginia. The states already had information that was on their websites that none of the search engines could get to. Literally, almost all access to government services seems to be starting through the search engines and they cannot find your service. Working together, a simple example, Arizona took…you would be pleased to note it Governor, 46 staff hours to make all this work available not just to Google, but to the other search engines as well, and boom, millions of people in your state have access to this. Let us do this together, it is easy to do.

I believe when we talk about education, and this group has worked on education for a very long time, we all understand how fundamental this issue of job training and education and higher order learning is. I believe that the next generation of children process information differently than we do. It is the generation gap of which we are the elders and they are the juniors that you face, we face, the issue of transforming the classroom from a classroom to an Internet classroom, and I do not mean getting rid of teachers and so forth, they are crucial to making this happen. When I was a young person growing up in Virginia, my home in a great state, one of the things then in seventh grade Governor, is that I had to memorize the 50 counties in Virginia and I had been asked to do it correctly, by the way. Why, of course I don't remember them any more. Why was that memorization so important? If I can carry a device that has that piece of information and everything else in the world with me at all time, what I really needed to do was to learn how to search, understand, manipulate and research, learn how to think about the state that I love and the state which I was a member and all the things going on.

It is a fundamentally different way of teaching and we are not teaching that way now, and the tools and the techniques are now available and ubiquitous. With energy needs, all of us, Craig, and Intel and many other companies are working to deal with climate and climate issues. With innovation, we are all building innovation models. Google is particularly innovative because of model called 70/20/10, where 70% of our investments are in core things, 20% adjacent and 10% in others. I would challenge you as Governors, how much of your budget is spent on true innovation? It is not described to you or

regulated to you or lobby to you by the many people who want a piece of your budgets and your attention. How much of it is true discovery? It is going on in your states. Reserve 5% or 10%, and the leverage is enormous. This is a remarkable time to be here, to be part of United States, the entrepreneurial system that is represented by Randall and myself view the world. School children in rural towns very much have the same access to the students of Oxford, Harvard, Cambridge, what have you? It is very different from what it used to be. We are very much at the beginning of a real revolution in education, information access and governing and in serving the citizens of United States. So with that, thank you very much.

Moderator: So, thank you very much Randall, Eric for your remarks and your comments to us on role of innovation as you see. Let me open up the table to questions or comments from any of the governors who are here on this or any other innovation topics, Phil? You got to press on it and keep it down.

Phil: You got to… you have to hold it down. All right, I will hold it down. This is probably from a Stevenson Moore, you talked as one of the likes of those two about the free flow capital and of course, we have in our legislature this year along with many other states, initiatives generated from YouTube to open that up. It did not succeed in Tennessee. I think there is a side bar more because somebody lobbying us for making so much money out of it than it did out of the basic, the basic approach of it, but the question I have is there are real issues surrounding the free flow of capital and communications and the absence of regulation. I mean, the phone industry that you described grew in a highly regulated environment. The cable TV industry started and grew in a highly regulated environment. The Internet may have exploded, but that would have been vastly slower without the huge infrastructure of copper and fiber and so on that were developed that way. I mean, what do you feel the role of a state is in terms of trying to ensure a quality of access? Mobile phones are very important. There are huge spaces at Tennessee, where I can't get a mobile phone signal, where people who live in those communities can't or can get it. What is our role in making that happen? Eric E. Schmidt: I think inherently the role…many may not like this, is more and more to stay out of the way. The more truly competitive these markets become, I think the less government intervention is required. There was a day inside the United States, directly subsidized broadband deployment literally with money and they have a national broadband policy, it's heavily subsidized and it is in fact accelerating their economic growth, so in the American system, where such subsidies are probably not the right political outcome, I can report to you that the financials of broadband are so positive that the telecommunications companies and the cable companies and so forth are in fact seeing economic returns from broadband. The problem is that there are still regulations in their way as Randall said. If I were Governor and I heard this message, what I would do is have a Broadband Task Force for my state and I would sit down and I would say tell me the 10 things and I wouldn't ask the industry, I'd ask my staff and the various end-users. What are the things that are preventing us from getting what we want and I go to the industry and say what are your problems and I will try to figure where to bridge them. There are many cases where local relatively antiquated laws are preventing widespreaded option of something, which is economically positive. The spread of broadband is so directly related to the increasing jobs in the rural areas, the use of the Internet, advertising business, the business we are in, electronic commerce, and so forth, that is fundamental. I was in rural Nevada and I happened to be driven by the Mayor of the small town and he was explaining to me that his basic problem was he could not get the telecommunications company to put a fiberoptic cable to his town because he wanted to create an

outsourcing center. We want all the mayors to think about where is the fiber and do they have enough of it and that will input pressure on their own regulatory bodies, work with the local guys to get this uphill.

Moderator: Governor Sebelius.

Governor Sebelius: Eric, since you're here to give us a new way to look at a lot of the initiatives moving forward. I'm struck by the fact that the numbers that you gave, which I think all of us know intuitively about phones, who has a lot of landline phone, who now is just using a cell phone, we can translate into our own kids, but it has an interesting application when you go to polling.

Eric E. Schmidt: States have many overlapping lists of their citizens. They have polling data, driver's license data, other kind of regulatory data, and there are tremendous inefficiencies in how those services are delivered, because they don't have a way of seeing one person as the same, and there are some reasons that that structure exists including concern over privacy. So through the degree that we can address privacy and you know, misuse of driver's license data and so forth, it would be very good if states had a better model of who their citizens were and then you roughly where they were or they had inability to reach them in an emergency. I'm struck by, as an example, you find out that in your state, there is a mortgage crisis and your citizens…a good percentage of your citizens are going to default, so you as a good legislator figure out a way to give them some credits. How do you reach them? How do you reach them today? The television, they don't watch as much any more. You can't call them at home, the canvassers are off doing something else. You have to find a new way to reach them and an obvious way would be to have more use of the web, more use of the electronic mail, and get them to choose to communicate with you on their own terms. People are now choosing to communicate directly. The polling question is much harder because its…people are hard to find, if you will, and I think what we'll see in polling is many more estimates, which is not necessarily good, but probably the best that we can do.

Moderator: Very good, Governor Sanford, let me just…Governor Sanford then we will have Governor Corzine, Governor Douglas, Governor Baldacci, and Governor Pawlenty, and then we'll have to cut off the questions.

Governor Sanford: Or you could take strong positions that more choices are good, whether it is vouchers or chartered schools or so forth. My personal view is that almost anything that we try will give us some experience of different models and then we should encourage that experiments, and I will also tell you is that we now have the ability to measure outcomes. So other than arguing about what could happen in these infinite strategy meetings that everybody seems to have in the subject, why don't you simply try five different initiatives and see what works and measure the outcomes and we'll accept any positive outcome.

Moderator: Eric?

Eric E. Schmidt: I am…Very simplistically I don't care what endeavor it is in government, in business or anything else. Competition is good and it's just inherently part of a free market society. I just think more competition is good in every endeavor, and so I would always encourage competition.

Moderator: Governor Corzine?

Governor Corzine: Thank you. Let me first just make an observation Randall that this isn't just the spread of broadband implementation of those programs, which we've done in New Jersey. This is just an issue of rural consumers. There are the difficulties of bringing this into urban areas and actually there may even be bigger hurdles associated with it, I wonder if you would comment on that, and then Eric, it is very hard to argue with the evolution of how we disseminate the information and how we communicate, but the oversight, some might say, the regulation of how the Internet works is something that is increasingly a concern to our citizenry, particularly from predators who use what is obviously a great leverage device in a way that can be harmful to society, I wonder if you want to speak what you think the role of government is or is it in that role as we see this inevitable evolution and strengthening the technology system?

Moderator: Randall?

Randall: Yeah, in terms of urban areas and broadband coverage in urban areas, I can't speak to New Jersey. We don't have that in our footprint, but as a rule, in our 22 states, the urban areas are very, very well covered. I would tell you we have done more to make it available to urban areas in terms of pricing. We have a $10 broadband product available for anybody that wants broadband. The dilemma we have on penetrating the urban areas that we are working and we are working this very aggressively is the cost of a computer, right? I mean, in urban areas, they don't own…the density of computers in the homes is not that great. So, what can you do to improve that? We're working with Intel on a device that it's not a full PC, but it's a device, they can access, and then utilize the Internet, and hook to broadband. Can you get $100 or $200 device? We could subsidize that right and truly begin to penetrate urban areas with broadband access, but I think that is the big…the long pole in the tent, if you will, can we get the computing device in the house that costs down?

Moderator: Eric?

Eric E. Schmidt: On the wireless aspect for cities, one of the good news about cities is that they are dense and so wireless broadband solutions including some that are free or very, very low cost are in developments. I think we have some hope that the technology can really help there. With respect to the oversight in regulation of the Internet, one of the great sort of sadnesses of my career is to discover that there are evil people on the Internet.

Those of us who were part of the Internet 20 years ago, we didn't think there would be any evil people on the Internet and that we find them left and right and they spend an awful lot of times sending us really terrible e-mails in the form of Spam. There is a series of things that society has to do. The first is to talk about it, so that people are aware of that. Schools need to spend a fair amount of time educating children about it, because no matter what we do, on the margin, there will be a new attack and they will find a 13-year-old boy or girl and potentially put them at risk and that is a truly terrible thing.

From a government perspective, the interesting thing is that virtually all of the things that we are upset about on the Internet are in fact illegal in the states in which they are performed. So, it does not appear

as though there is a need for some whole new national set of laws in this area, but rather the development of the tools and the techniques of, you know, law enforcement to discover track and so forth and there are companies like Google can actually help in the sense that we do have pretty good idea of what people are doing and under the appropriate legal systems that that information can be used to help essentially apprehend the bad people. There are issues when you cross border. So, for example, you will have somebody who is doing something inappropriate, where the U.S. law does not reach and there are probably issues around trade agreements to make sure that we can have quick response for those extra things as well.

Moderator: Yeah, and I would also add to that. I think the early childhood committee meeting this week is going to be talking about online predators as one of their topics, so obviously an issue of great concern to all of us. Governor Douglas.

Jim Douglas: Thank you. Earlier this year I signed a law, a bill to create a telecommunications authority to both get out of the way in terms of expediting, permitting and, as Governor Randall suggested, to make sure that we deploy infrastructure in rural and remote parts of the state that may not be economically feasible for the telecom providers. But one discussion point that has come up is what is the future of infrastructure when in our…in this era we have a phone becoming a computer, becoming a television, providing different types of telecommunication services, are the federal grants we are getting to deploy fiberoptic cable really forward-looking or are they generation that perhaps will pass and we get a satellite company offering to do a pilot program in a rural part of our state, what is the future of infrastructure for telecom?

Moderator: In ten words or less…let me…

Eric E. Schmidt: A quick summary is that fiberoptic bandwidth has almost no limit of its, the amount of bits that you can put in with the appropriate upgrades of the ends. So, you should be proudest of all that fiber that you are busy laying because that fiber will last for 25, 50 years and people will be doing amazing things with that fiber in our lifetimes.

Male Speaker: More fiber is a good thing. I don't care, you know, where you are or when you are doing it, more fiber is good.

Moderator: So, it is a Pro-fiber diet for telecommunications is where we are, all right. Governor Baldacci.

John Baldacci: Now, first, I want to thank you Janet for your leadership and the issues that are being discussed. I find them very, very interesting. One thing, I would like to ask Randall a question when he talked about the needs in rural America. Governor Douglas and Governor Lynch and myself in Maine are coordinating in the rural part of northern New England IT cluster, to get industry support to give us a curriculum, to give us some of their recipes and needs for their workforce, so that we can transition our people from the old economy to the new economy and the challenges are to find those companies they are willing to partner in this new studies coming out showing that it is probably better, more productive, more retention here instead of outsourcing to India, it is to do it in rural America and we offer the opportunity in rural northern New England to be able to come out with these sorts of

things because we changed our educational system from two years of math and science to four years of math and science and have eliminated, tracking so that everybody is thinking about higher education. But industry partnering I think is a huge help to me and to our region and I would just put that at your doorstep and you are representing industry today. So, I appreciate any comments you have on that and I think Governor Douglas asked the question I asked, at what point is it going to be either the television or the telephone or which one is it going to be that is going to end up being the one that everything ends up coming through, because it just seems like it just completely evolves in changes so much so that it is amazing. So, I mean, if you can, Eric, if you could have a look down that road and just tell us because it used to be everybody was in their own compartments and they had their own responsibilities. Now, it seems like the whole thing is merged and they are all competing with each other, which is great but at what point that…

Moderator: Good. Randall and then Eric.

Randall L. Stephenson: In terms of the partnering, I accept you laying that in our doorstep. It think it is important for industry again government to partner. In fact, a few leaders in our area where we do business prevalently, we are partnering with them in this regard; especially as it relates to bring some of these jobs back from India, specifically and trying to get the skills sets up to make sure that we have a workforce that can accommodate the volumes that we are going to be bringing back. In terms of which device is going to win, you know, there are three screens that matter in my world right. This wireless screen, the PC and the television, all three are going to be relevant for a long time. I think the companies that can make those kind of work together and seamlessly, I think will stand a big advantage, but all that Mr. Internet responded that as well.

Eric E. Schmidt: Thank you. Most people assume that all the devices that you carry will end up as one and unfortunately I think the inverse is probably true. You probably unfortunately have more devices. You know, you have what we say IP addresses even in your shoe, because there will be something that is useful in your shoe that the internet will need to know about like how many, how far you are, where you are. I carry my old phone, my iPhone, my blackberry and my camera and I have a zip drive, it doesn't fit any of the four. Thank you very much. This is not convergence. The trick as Randall pointed out is that all of these devices along with these amazing televisions that are being built and amazing new PC screens will have access to the same information. So you will be able to use your phone or your handheld device or what other device you use to access the same information. And when you go to your office you will be able to see it and when you go home you will be able to see it and then you can work all the time.

Moderator: Oh, boy! Thank you and Governor Pawlenty.

Tim Pawlenty: This is for Eric. You talked about the IT or I guess the Internet classroom. We have of course this generation behind us absorbing information fundamentally differently and transmitting it fundamentally differently than even my generation and so our children, my 14-year-old, my 11-year-old they instant message, text message, MySpace, YouTube, e-mail, you know it is completely different and yet we are in classrooms even though we have smart boards and Internet classroom opportunities where we primarily still have people standing up with erasers in front of white boards and lecturing and boring children, particularly at the high school level and we are still using standardized

text books, which are one-size-fits-all kind of assembly line approach. Beyond white boards, beyond some internet classroom opportunities or online learning opportunities, what is the future of the Internet classroom in a way that might allow us to leverage technology, better customize learning opportunities across an array of needs and abilities and speeds, what do you see for the future in that and what policy suggestions which you have for us?

Eric E. Schmidt: A couple of observations. The teachers of America are among the most isolated working professionals that we have. They have relatively few opportunities to spend time with their peers to learn how to be better teachers and so forth. With the Internet and the National Governors Association has been part of that, there are now groups that are trying to standardize not just the textbooks but also the teaching tools, the teaching methodologies and in fact producing videos of the great teachers to augment that. So, that is observation number 1. The Internet, which is now present in pretty much every classroom in one form or another, we finally now have a way of getting into that classroom. The second observation is that the modality, the way in which people are teaching has to become more interactive. Fundamentally in this new world, it is an interactive world. It is a personal world and that means two things; it means the teachers actually have to have a conversation, the students have to interact with the media, and then needs to be a test and the test needs to be based on the outcome, not the time spent in the classroom and a simple change, simple legislative change that will allow some flexibility and some experiments with that and then test the outcomes, would probably begin to show the way and each and everyone of the states represented here about how citizens really can take advantage of this now. What is interesting to me is, I originally thought that this information was not available on the Internet. There are tremendous amounts of teaching resources available on the Internet and they are not being used to teach our students.

Moderator: Good. With that, thank you very much, thank you, Randall, thank you Eric very much.