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**Workshop**

**WORLD ACCORDING TO GOOGLE**

**Expanding Technology Horizons**

**JUNE 17, 2011 — 12:30–13:15, Pavilion 8, Conference Hall 8.2 Innovation  
Hall**

**St. Petersburg, Russia**

**2011**

**Panelist:**

**Eric Schmidt**, Executive Chairman, Google

**S. Guriev:**

The next session will start at 13:20. This is a very high-tech, on-time room, so everything is up-to-the-minute. We have a very exciting session ahead of us. We have Eric Schmidt to talk about "The World According to Google". I will not spend much time introducing Eric because you can Google him.

But Eric has had a distinguished career in the IT sector, working in a number of great companies including Bell and Xerox Palo Alto Research Center, PARC. He was actually the first software engineer in Sun Microsystems.

Then he was running Novell, and then he joined Google where he was CEO until this year, and now he is Executive Chairman. He studied in Princeton and did his graduate studies in Berkeley, where he got a Ph.D. in Electrical Engineering and Computer Science.

The way we are going to run it, is that I will ask a few questions of Eric, and we will probably have time for questions from the floor.

Eric was speaking here to the youth forum and he was talking about pretty much the same things. And I see there are also a number of familiar faces from that session. And so that is why I would like to redirect questions from those that you have covered to those you did not have time to talk about.

You talked a lot about how the Internet and new technologies are delivering what is called in economics 'consumer circles', increasing individuals' utility, individuals' quality of life. In this session, we would like to talk more about how new technology in 10 years or so will have an impact on social and economic processes and what will change qualitatively in the way our society and economy function.

You mentioned some of that yesterday, but if you can elaborate on that, how social interaction will change, how intellectual property rights will work differently, how privacy rules will develop, things like that, please.

**E. Schmidt:**

Well, it is a very broad set of questions, Sergei.

**S. Guriev:**

It is. It is.

**E. Schmidt:**

First, thank you for hosting this. Thank you for inviting me here to the Economic Forum.

And I was going to say that I was in St. Petersburg 17 years ago, just at the beginning of the Internet, and the changes that I have seen are so astounding over that period that you all are to be congratulated for what you have achieved. To have built such an infrastructure, to have built such a vibrant economic structure around the Internet here in Russia is something that you should be proud of, and it is a great accomplishment for everybody in Russia.

When I think about this, I think about what happens when everyone is connected by a wireless and wired broadband system. And I should add that the primary goal of government, in my view, is to promote the adoption of wireless and wired broadband. And then the citizens can take over.

And the citizens using that infrastructure can go ahead and invest in education, in entertainment, and so forth. This adoption of broadband, fast connections for every citizen or as many as you can connect, is very pro-democracy. It is very pro-empowerment. It is very pro-citizens. It is very much an opportunity to create new jobs. It is very pro-exports. It is very pro-global.

There is a recent study, maybe in the last month, from McKinsey, that indicated that for every one job that is lost in the Internet, 2.6 jobs are created. So whether you have a strong economy or a weak economy, whether you have a democracy or not such a good democracy, the fact of the matter is that the Internet makes everything better, especially fast broadband Internet.

So if you have broadband Internet, and I will say that I think Russia is in a sweet spot. You have around 40%, 45% penetration right now. If you look at European averages, again a modern European country from my perspective—Russia—should be at 70%, 80% fairly quickly. So that means huge growth. Huge growth in telecommunications, in new companies, new investments, and so forth.

You have recently had a set of significant IPOs – Yandex, Mail.RU and so on and so forth – that are attracting capital and investment for the next generation of

entrepreneurs, who will build companies on top of this. So I think that sets the right sort of foundation for our conversation about what can happen, what you can build on top of that.

**S. Guriev:**

I think we should assume that 10 years from now, in countries like Russia, but also in countries that are poorer than Russia, they will have almost 100% broadband coverage.

**E. Schmidt:**

But that is a pretty amazing assumption.

**S. Guriev:**

That is true.

**E. Schmidt:**

And that is like saying everyone will have roads and bridges and so on and so forth. And the good news about this technology is, it is relatively inexpensive, once built, and that the fibre optic infrastructure that is being laid now in Russia is an asset for the country for the next hundred years.

**S. Guriev:**

Right. So assuming that information transmission, and actually data transmission, and multimedia content transmission is becoming cheap and available to a few billion people, what does that mean for things like, for example, intellectual property rights?

**Eric Schmidt:**

Well, let us talk about some of the things that happen as a result. Let us assume that everyone has a fibre optic connection to their home. And you say, "Well, that would be hard to do."

Well, in certain Asian countries, it is largely now achieved. In Japan, the average speed seems to be about 100 megabits, Korea about 160 megabits. So if you

have more than 100 megabits for your home, the distinctions between television and radio and the Internet and all of the other sources just go away.

**S. Guriev:**

Exactly.

**E. Schmidt:**

And so all of a sudden, the video comes and you do not know whether it came over the Internet, or over another transport. And I think that is the model for the future.

So in that scenario, the traditional arbiters of distribution, the traditional networks and distributors, are upended because, all of a sudden, it is possible for the content creators, the producers, the people who build movies and so forth, to reach directly to consumers and charge whatever they want. So all of a sudden, that changes things. Similarly, a news organization would want to show their news information everywhere, not just on their own channel.

So that is an example of a disruption which changes economics, but ultimately benefits society because people can see everything they want. It is always available on their iPad or their television, or what have you.

**S. Guriev:**

But for the producer of the content, what would be the viable business model? We have seen a dramatic change in the music industry, now I guess we are about to see the same happening to videos and also news organizations, as you mentioned.

**E. Schmidt:**

The producers of this content are developing new models. From a Google perspective, we want to respect copyright. And so from our perspective, if you own the copyright and you build the product, you should decide how to sell it.

Now, choice 1 is that you could use advertisements. And we are in the advertising business. That is obviously self-serving. But another way is that you

could have subscription. So if your content is good enough, maybe people will pay you on a monthly basis. They will give you a credit card. We built a system to do precisely that, called Newspass. So copyrights will be respected and people will come up with new ways of charging.

So for example, as well as the traditional charging models, there will be more choices. And these are rough markets. Prices will fall. Some people will make money, some people will lose money. But ultimately, these are capitalist systems, and the customer will win.

**S. Guriev:**

So you expect maybe that some industries will probably see their profits shrinking, like we have seen in the music industry. So if people are willing to pursue the career of a celebrity or a movie star, that may actually be less attractive for a career in the future?

**E. Schmidt:**

Let us talk about it positively.

**S. Guriev:**

OK.

**E. Schmidt:**

How many people here are really upset that the pager business is not so vibrant today? Everyone is very sad for the pager companies. They were such nice people. All those jobs... We have a person over here who is very, very sad about all those pagers.

And do you know that those evil phone people came along and they took the pager capability and they put it into the phone? What a terrible idea!

Do you see how crazy that is? Obviously that is a joke, by the way. I should say right up front that on the Internet, you now cannot joke anymore. That was a joke.

**S. Guriev:**

Exactly. They will take it out of context...

**E. Schmidt:**

That is right.

**S. Guriev:**

...kick out your disclaimer and they will use it against you.

**E. Schmidt:**

That is right. I was just having a little fun at the expense of these wonderful pager people.

But in any case, my point is that technology changes and that I used to carry a pager and now I have a mobile phone and it does everything the pager did and more. That is technological progress. We all welcome it.

It is interesting that in the music business, the total revenues of the music business for recordings in the way that you are describing is now down to 5% to 10%. Where does all the other money come from?

It comes from tours. It comes from merchandizing. Well, those businesses are booming. So just because one piece of a business was upended by technology does not mean that you cannot make another piece a success. An example would be that the broad availability of music does, in fact, enable global stars to sell branding and become even more famous and so on and so forth.

So again, we always want to focus on the negative, the loser, if you will, in a technological change. But we forget that huge new industries are being created. And I believe that will be true with this technology.

Another example. There has been a lot of discussion about newspapers, and newspapers are incredibly important. And it is very important to newspapers to be able to make money and so on and so forth. But newspapers are incredibly successful on the Internet. The problem is making money from it.

**S. Guriev:**

Exactly.

**E. Schmidt:**

But it is not that they have lost their readers. It is just their readers are not paying in the same way, and they are not paying enough. But the fact of the matter is, people love newspapers and they particularly love newspapers online.

**S. Guriev:**

That is true. But to what extent will the newspapers be able to continue to hire high-quality journalists?

**E. Schmidt:**

Well, hopefully we will build new models. You are, in fact, an academic professor.

**S. Guriev:**

Exactly.

**E. Schmidt:**

And you could imagine that, over the next 10, 20 years, Russians will come up with very sophisticated ways of teaching and training the sophisticated sciences that you represent and economics and so forth, and you might be dislocated by that as well.

**S. Guriev:**

Absolutely.

**E. Schmidt:**

But the fact of the matter is that the society would be better off if everyone is learning about economics on the Internet because it reaches all of the country.

**S. Guriev:**

From the best professors.

**E. Schmidt:**

From the very best professors.

**S. Guriev:**

Not from mediocre professors.

**E. Schmidt:**

And my point is that that is a celebrity business.

**S. Guriev:**

That is true.

**E. Schmidt:**

It is a celebrity business around talent. And there is no particular reason to think that your teaching ability, which I am told is very good, would not have a much broader audience.

**S. Guriev:**

Right.

**E. Schmidt:**

So the Internet creates very large audiences that can be monetized. It is important to figure out new ways of monetization that are not the same as the old.

**S. Guriev:**

Let us take another example—Google Books. To what extent do these models you were talking about apply to that project?

**E. Schmidt:**

Well, Google Books is actually quite interesting. I will give you a statistic from Amazon. I was...

**S. Guriev:**

You do not know what Google Books are? Raise your hand, those who do not know about Google Books.

**E. Schmidt:**

Let me describe it a little bit... I will give you a statistic about Amazon. Everybody knows about Amazon, right? Last month, Amazon announced that they were selling more electronic books than they were physical books. And I went, "Oh, my God!" I thought that people would maybe make a few purchases of electronic books. So I was wrong.

The fact of the matter is that many, many people are now purchasing books and they are paying a fixed fee. There is a huge competition now between Apple, Amazon and Google over the pricing of these electronic books. That competition benefits the consumer.

But what was surprising to me was how quickly people are moving to these electronic versions because of convenience. If you have an iPad or an Android tablet, or various Kindles and other kinds of readers, it is just easier, if you will, to read these books and carry them around. You get tired of carrying all these books around, you travel all the time, and so on and so forth. Customers are moving, customers are voting, and they are voting for electronic books.

They have a different monetization. In the US, prices are between \$10 and \$12. That will change the industry. But people are reading more books. That is good!

**S. Guriev:**

Yes. And coming back to Google Books, there has been quite a controversy about intellectual property rights there, right?

**E. Schmidt:**

There are two different things. Google Books are very much like what Amazon and Apple are doing. They are very successful, growing very rapidly. And it looks like that is going to be a big success for us.

We also do something else. We have been scanning existing books in libraries, in partnerships with the libraries. This created a very large lawsuit in America, which we settled after four years of negotiation.

I cannot imagine this would occur in Russia, but in America it took four years of negotiation. We agreed, we gave our settlement to a judge, and after one year of reading the settlement, he decided he did not like it. So we have been at this for seven years in total.

So based on that, the various sides about our scanning are still in discussions as to what we should do and whether we should seek a change in the law or go back and talk to the judge. But that is very different from Google Books.

And the reason we were scanning the books is that we feel that if you are basically a student in some random city in Russia, you should be able to read the world's books that are out of copyright. And the question had to do with a particular segment of those books where the copyright is not really enforced; no one knows who owns it, and so forth. And that was the legal issue.

**S. Guriev:**

Right. Now another controversial issue is privacy. Today we have just heard some news from Connecticut where the Attorney-General of the State of Connecticut invited Facebook executives to talk about face recognition technology.

We know that Google Goggles actually deliberately ruled out face recognition, even though apparently it is technically possible now.

**E. Schmidt:**

Yes.

**S. Guriev:**

But since the technology is available, probably in 10 years it will be almost, I guess, free to implement it. Maybe Google will not do that, but maybe somebody else will. And we see already that Facebook is kind of doing that. What do you think will happen to the privacy of a person in 10 years?

**E. Schmidt:**

I am very concerned about face recognition broadly applied for, I think, the reasons that a lot of people are. So that everybody knows, let us talk about the technology. It turns out that in computer science, image recognition has gotten very good at face recognition, to the point where it is scary. And a statistic would be that if there are 10 or 20 pictures of you out of a crowd, we can, with some probability, identify you without your knowledge or name or so on and so forth.

This activity, as I have reviewed the laws in Europe to do a generalized database of that category, is in fact not legal without a license, because of these privacy concerns. And we generally support those rules.

So it is not a good idea in our view that these kinds of services be applied without the user's permission, because it could be abused. You can imagine all sorts of ways in which it will be abused. If I took a picture of everyone here, you could automatically name everybody, and that is really a violation of people's privacy.

So we care very much about people's privacy. We want people to be able to say, "I want to participate" or "I don't want to participate." And I think ultimately that is how the laws and regulations will emerge.

**S. Guriev:**

But there are many countries, well, in all countries, it is illegal to own guns without a license, and then there are still criminals.

**E. Schmidt:**

Have you been to the United States?

**S. Guriev:**

Well, they still have to have some kind of permission, right?

**E. Schmidt:**

There are a few states.

**S. Guriev:**

There are a few states where they do not, OK. You can just walk in and buy a gun. But anyway, in Europe since you mentioned it, it is illegal to own a gun for private use, except for some cases, and still people commit crimes using guns.

And in that sense, I think the face recognition technology in 10 years will be so cheap that people who operate without a license will be able to build it up and afford it, right?

**E. Schmidt:**

But this is an example where the Internet and communities and society will ultimately have to decide how to police such activities. Internet companies have to operate under the laws of the country that they work in.

**S. Guriev:**

Right.

**E. Schmidt:**

So when we are in Russia, we operate under Russian law. And we have to work with the government to make sure the government understands what the technology can do. We have to respect the local culture.

In some cases, we have withdrawn products because we did not agree with the law. But we have no choice. We are not our own country. And I think that the same can be true.

So you could imagine a scenario where the kinds of bad technologies could be applied by criminals, but that is true of the phone, too. Did you know that criminals use the telephone?

**S. Guriev:**

That is true. Even cars.

**E. Schmidt:**

They actually drive cars and they use the telephone.

**S. Guriev:**

Yeah.

**E. Schmidt:**

And they should not. And in fact, criminals should not be criminals. You should stop committing crimes. I mean, I do not know how else to say it. These activities are not legal. We do not support them. And we do not want to be part of it.

**S. Guriev:**

Thank you. One other issue that you kind of touched upon yesterday, but basically, to what extent do you think the new technology will indeed change the government's ability to police general crime and also fight terrorism? Or to what extent will the new technology actually reinforce the terrorist networks' abilities to do what they do?

**E. Schmidt:**

So let us ask a question here of the audience. Let us say you have a choice of having no Internet or an Internet that has some criminals on it. Which do you think produces a safer society?

Now, on the one hand, the 'no Internet at all': criminals could not use it. But of course all of us, no criminals here of course, could not use it either. I would argue that, although we obviously do not want bad, criminal behaviour, you are fundamentally better off having the Internet and then using the fact that the vast majority of people are honest, law-abiding, good citizens to help you as a government.

So to those people who say that somehow this is evil, this is bad, we should not allow this, I answer, well, why do we not ask the people who are on the Internet, the vast majority of which are honest and law-abiding? If you see things that you do not like, call it out, report it. That is what crowd sourcing is all about.

And I would argue that the broad penetration of the Internet is ultimately better for the safety of a country because it means that it is quicker to report crimes, it is

quicker to report anomalies. The government can use the fact that the Internet is connected, to understand what the society is doing and understand better what people are up to.

**S. Guriev:**

So your response is definitely that it is effective, that governments will actually be able to engage civil citizens, civil society, and on a larger scale to fight crime as well as corruption.

**E. Schmidt:**

Well, the most obvious one is corruption. Let us say that there is some corruption in the country. The simplest way for citizens to try to prevent that is ask the government to fully disclose transparently where all the money goes. And then citizens who have some free time can go track it down and they can report that the toilet seats over here cost \$1,000 and they cost \$10 over here. And maybe they are better toilet seats, but they are probably not a hundred times more expensive, in terms of the value.

**S. Guriev:**

And the expensive toilet seats are usually installed in military planes.

**E. Schmidt:**

In military planes. Well, in fact, in America there was a large... I do not know about you in Russia, but there was a shocking problem that we were purchasing thousand-dollar toilet seats for our military.

**S. Guriev:**

Of course.

**E. Schmidt:**

And it turns out that this was because of the way the procurement worked. It was not, in fact, corruption. But it was an example of inefficiency, and it was called out and it was fixed. Now we buy \$5 toilet seats in our military, which is perfectly fine. My point about the toilet seat example, which is obviously a foolish one, is to say that we have an opportunity to have government be more transparent, which will help keep the government honest. And the Internet also makes the citizens' activities more transparent, which also helps you understand the good and the bad of the citizenry.

**S. Guriev:**

Which actually brings us to another question, about the political implications of new technology. You talked yesterday about how new social networks influenced the protest activity in the Middle East and eventually toppled the regime.

But building up on your last comment, I would like to ask, to what extent do you think the politics can become more direct in a sense that, like in California, people would vote on many, many important policy issues directly, given that the cost of voting is now coming down so much. To what extent do you think it will change the way the political system operates?

**E. Schmidt:**

I am sure that the Internet will affect politics in many, many ways. I personally do not believe we will move to a more direct democracy.

Many people believe that the California experiment has been a failure. California now has deficits that are larger than the deficits of most countries. So again, there are many, many critics of the California system, which dates from 1911.

**S. Guriev:**

The actual deficit which is larger than GDPs of many countries.

**E. Schmidt:**

That is right. Again, the California system has some problems.

But let us talk a little bit about the role of these networks in governments. In the first place, there is a problem with voting because not everyone is on these social networks, and you really want your voting to have all citizens participate.

And also, these online systems today do not have very provable identities. We cannot be sure that that voter is that voter. And those are technology issues to be worked on.

**S. Guriev:**

But that is probably solvable.

**E. Schmidt:**

These are solvable over a period of time.

But if you look at the Arab revolt, what ultimately happened was that the state was not sharing enough of the wealth with the citizens, and the citizens were not participating in a robust enough economy and economic growth. And, ultimately, it was not just political freedom but also economic freedom that drove the protests.

It was a feeling that these were static, stuck countries, where the government did not represent the will of the citizens. So in those situations, the citizens can use Facebook the same that it is used, as we use Facebook to schedule the protests, Twitter to get people to the protests, and YouTube to record the result.

And we are generally proud of the people who are involved in this. We think that governments should serve the people, whether it is a democracy or a less-than democracy. And I think the role of technology is important. I think in many cases it is overstated.

These were courageous people who went out and risked their lives. They used the tools that were available to them, which included the ones just like previous generations used—the phone, cars, and things like that.

**S. Guriev:**

OK. Thank you. We have some time for questions, so I would like to open up for questions. Anybody have questions? Yes, please. There is a microphone. Wait for the microphone.

**E. Schmidt:**

Yes. Let us get some mics so people can hear you on the video.

**S. Guriev:**

Please keep raising hands so we can coordinate microphone distribution to save time.

**From the audience:**

So I am actually curious about the Google experience in China. The three of us are all trying to figure out how to help entrepreneurs enter China right now. We are really trying to figure out the market industry.

And if you were to not just redo it, but if you were to look at us and help American companies into China, what are the big things we should really look into, based on the experience that Google had in all their problems?

**E. Schmidt:**

Well, Google's experience, of course, has been quite mixed, which is probably why you asked the question.

The Chinese have quite a few laws with respect to foreign-owned companies. The most important law they have is that you cannot have foreign-owned companies. You have to have Chinese-owned subsidiary companies where there is a subsidiary component, which is an American or a Russian firm. So you end up in these joint ventures, which is indeed what we did.

In our case, what happened was the Chinese laws on free expression and censorship ultimately resulted in active censorship of the Web. And after five years of trying to work with the Chinese government, we ultimately felt that their demands and the restrictions of their laws were not really acceptable to us.

And so we moved to the other China. China likes to talk about 'one country, two systems'. We prefer the Hong Kong system, where these laws do not operate.

And indeed, Google today operates in the other China, mainland China, through a firewall that exists between Hong Kong and mainland China. And that seems like a workable solution. We have been able to get our business licenses, of which there are many that are required, and we have been able to work with the government. And so things seem pretty stable.

But I would tell you that China is difficult to operate in, because of the laws. But there is great opportunity for entrepreneurship. Chinese culture is very entrepreneurial. Chinese citizens are very clever. The culture moves very quickly. And I would encourage you to follow the laws, but certainly enter and invest in China.

**S. Guriev:**

Thank you. There is a question there.

**From the audience:**

Dmitri Klivshitzs of the Russian Agency of Investments and Privatization. And my question is, how do you see Google's future, let us say, in 10, 20 years?

**E. Schmidt:**

It is very hard to predict what will happen in even five years.

Let us do some math. We are governed by Moore's Law, which is roughly the doubling of performance every two years. Which means in 10 years, everything is 32 or so times faster. Which means in 20 years, it is a thousand times faster.

So imagine your mobile phone a thousand times cheaper, a thousand times faster. Still the same fingers, by the way, but that much faster. And begin to think about what we can do with that kind of computing capability. A thousand times more servers and knowledge and so forth.

We can begin to call out suggestions to you. Again, with your permission, we might know things about you, about your preferences, and the things you care about.

We might be able to have a global calendar. We might be able to suggest who you might want to get to know or new areas of subjects. These are all projects that are in development today in various parts of our industry.

From a Google perspective, I would speculate that Google will clearly still be fundamentally in the information business, but you will see fewer of the answers of 'here is all the Web' and more of a move to giving you the right answer. That in this period that you are describing, our artificial intelligence technology will get so much better that we can begin to answer the question with the right answer, as opposed to just having you go to try this, try that, and so forth. And that is very exciting as the technology gets better.

**S. Guriev:**

Let me pull up on this question about another Google product, Google Translate. I am sure that the 'thousand times more convenient power' implies that we will have mobile phones which will translate conversation in real time from language to language.

**E. Schmidt:**

And in fact, we have demonstrated that now.

**S. Guriev:**

That already works for English and Spanish in both ways?

**E. Schmidt:**

And our plan there is to do a hundred by a hundred. So one of our goals is to be able to do every language to every other language, both spoken as well as written.

**S. Guriev:**

Yeah, absolutely. What do you think will the implication of that be for social interaction?

In one sense, everybody will speak the same language. It is like a babelish from "Hitchhiker's Guide to the Galaxy". On the other hand, would people still study foreign languages to understand foreign culture, or read books in foreign languages? Will the profession of translator disappear?

**E. Schmidt:**

Oh, there is another crisis. Oh.

**S. Guriev:**

Exactly. Foreign language departments will close down all around the campus.

**E. Schmidt:**

Oh, yes. It is all terrible.

**S. Guriev:**

Yeah. But definitely, I am not sorry for this, guys, but I am thinking more about, will people not miss studying foreign languages for a reason?

**E. Schmidt:**

The good news is, I think the role of translators will actually grow in this scenario, because people are curious and the computer technology in the period of time that we were talking about is not going to be equal to the quality of a great human translator. And in any case, it will be difficult to translate the nuance of book-reading. So the good news is I think the study of foreign language is probably a growth industry because of that.

One of the things that people miss is that they assume that because there is a change, the market gets smaller. My experience is, in fact, the opposite, that when you introduce something like Google News, there is more news read, not fewer newspapers.

**S. Guriev:**

But less money earned.

**E. Schmidt:**

But that is a transitional problem.

**S. Guriev:**

Right. OK.

**E. Schmidt:**

And again, maybe for trivial translation, routine translation like, "Where is my taxicab?" and "Where is my hotel?" maybe that service will become less valuable, because computers can do it. But because people are more curious about the world, sophisticated translators are probably going to be worth more money.

So again, you want to have a nuanced view of the business changes as a result. But if you think of it not as a business problem, but as a societal problem, in our lifetimes, we will have gone from a very small elite in the Western world, in Russia, who had access to the libraries and the knowledge of the world to virtually everyone.

In our lifetimes, it is reasonable to expect that there are in the order of 7 to 8 billion humans on the planet. It is reasonable to expect that somewhere between 5 to 7 billion of those will have access to literally all of the world's information: the good, the bad, all of the languages, all of the books, all of the literature, all of the history, all of the possessions of the Hermitage, and so on and so forth.

And for us, as sophisticated, Western-thinking, educated people, the arrival of this information is exciting. If you have grown up in a small rural village in a poor part of Asia and this iPhone, iPad, Android device, whatever, shows up, it is life-changing. You went from having just the people around you as your knowledge to literally seven billion people.

It will drive huge creativity. All of these people will join the conversation. I think it is very positive from a standpoint of safety of the world, the interconnectiveness of the world, the safety of individuals, fewer wars, fewer conflicts, and so forth.

**S. Guriev:**

There is still a discussion about what is called net delusion. Some people are saying that while there are some idealists who believe in the things you are saying. I am with you.

**E. Schmidt:**

By the way, I am a pragmatist.

**S. Guriev:**

Pragmatic idealist.

**E. Schmidt:**

I am clear that this is positive and negative.

**S. Guriev:**

Sure.

**E. Schmidt:**

But I want to say, that it is going to happen and it is a very big deal.

**S. Guriev:**

Absolutely. But we also see that in some countries, the governments actually use the new technology to, as we just discussed, do bad and generate mistrust and prevent the spread of information and use it for propaganda and brainwashing. To what extent do you think this is an issue? Why will one source of information prevail over another one?

**E. Schmidt:**

Well, I am not suggesting that only good things happen from the Internet. I am suggesting that, overall, good things come from the Internet and there are some bad things that have to be handled.

And a lot of these questions are not really about the Internet and Google. They are really about the trust and education levels of a society.

So let us give you an example. Let us play out a mythical example, where we have the perfect evil dictator, who decides to use the Internet to oppress everyone. So what they do is they centralize all the information. They have a news feed which is like a single TV station and they spread that information over the Internet to everyone, and they try to restrict everyone's information to that. So that will be a classic evil dictator model.

Eventually—human society is curious—and eventually the people in such a society will find a way to get the other views heard. They will sneak the information in. They will make connections. They will invent new technologies.

I have been working on trying to understand this balance, and it is quite interesting, but if you have the perfect evil dictator, and I mean that in the most evil sense – I am not endorsing it obviously – you also can imagine in the same society the perfect dissident, who uses sophisticated encryption technologies and sophisticated ways of cloaking themselves to go into that system and attack it and spread other choices of information.

And ultimately, it is the society that will determine how to deal with this. But I do not think that a single voice, a single monopolistic voice, is a reasonable scenario in the Internet. It is simply too flexible. There are simply too many ways. It will be very, very difficult for this evil dictator to really control it. And I think that ultimately is the promise of freedom of the Internet.

**S. Guriev:**

I think we are going to wrap up very soon. And to close, I see a lot of young people in the audience. And you just said that many professions will disappear, many technologies will be cannibalized by new technologies...

**E. Schmidt:**

And new ones will be created, which will be larger than the ones that are replaced.

**S. Guriev:**

Absolutely. I am also a pragmatic optimist like you. But what would you recommend to the young people in the audience? What kind of careers do you think will be the best?

**E. Schmidt:**

Well, there is a new generation of companies being founded, and there are quite a few here in St. Petersburg and in Moscow and I would suspect in other parts of Russia, which combine some of the principles that I am talking about now. They use a combination of information about social behaviour, social networking. They use maps, they use advertising, and they use local information. So let us call that Mobile Local Social.

And those companies will become the next IPOs. Some combination of them will become the next billion-dollar equivalent corporations here. And it will happen very quickly because the government and the telecommunications industry is busy getting the country interconnected.

So to me, the quickest way to be successful as a young entrepreneur is to try to figure out, when everyone in Russia is connected, what is the question that they cannot answer today that you can answer for them?

If you can figure that out quickly, and if you can get it built quickly, you can build a business very, very quickly, whether it is in entertainment, something related to search or travel or resources, any of those.

And I can tell you that in talking to people here, the ideas that I am hearing here are very much the same level of quality as the ideas I am hearing in Silicon Valley. I am not suggesting that the ideas are different. I am suggesting that they are literally in the same category.

So there is every reason to believe that the same dynamic that has propelled Silicon Valley today, with all the things going on right now, will also work here.

**S. Guriev:**

OK. I would like to wrap up and thank Eric for this exciting conversation. Thank you very much.

**E. Schmidt:**

Thank you all. Thank you so much.