5th Annual Lloyd N. Cutler Lecture on the Rule of Law

*hosted by* Justice Ruth Bader Ginsburg,

*delivered by* Eric E. Schmidt,
Executive Chairman of Google

*and moderated by* Jeffrey Rosen,
President, National Constitution Center

The Supreme Court of the United States
November 17, 2014
6:30-7:45 PM
JUSTICE GINSBURG: Good evening and welcome to my work place. When Stephen asked me to substitute for Justice O'Connor as your host for tonight's event, I did not take my cue from Nancy Reagan. I just said yes.

Tonight's lecture bears the name of a man of many talents, one who was never at a loss. He could even gain seats on short notice for the Salzburg Music Festival's most popular productions. A Washington lawyer in the best sense of that term, Lloyd Cutler was counselor to presidents, advisor to the best and brightest here and abroad, devoted from the start to the Salzburg Seminar.

I participated in the seminar twice. In the 1980s, I taught in the Introduction to U.S. Law course offered to promising lawyers in mid-career from diverse nations. More recently, I took part in the Salzburg Global Seminar, with a faculty drawn from jurists and engaging thinkers in several countries. The seminar gathered an extraordinary student body of doers and thinkers in their own communities, most of them still in their 30s.

I remember particularly the Israelis and Palestinians in the group. In the course of the week, they spent dinner time together and then late evenings in the Bierstube arguing, tale telling, laughing, enjoying each other’s company. The seminar formula worked as magic in drawing them together. Ever cognizant of their differences, they also appreciated their common humanity and their shared aspirations for peace and prosperity in the Middle East. If only that magic could exist in their homelands.

It is my pleasure tonight to invite our journalist moderator, Jeffrey Rosen, president of the National Constitution Center. He will launch the program. Jeffrey is a moderator and interviewer nonpareil. I know that from personal experience. Jeffrey has interviewed me time and again. He does it so well; I find invitations to engage in conversation with him irresistible.

MR. ROSEN: All right, ladies and gentlemen, I have to confess what may, in fact, be obvious to you which is that I have an incredible crush on Justice Ginsburg. I have had the great pleasure of interviewing you many times over the years and I think about three times in the past month alone which has been one of the greatest highlights of my life.

I am especially honored to be here for the first time as a moderator for
the Salzburg Seminar. We have a great treat in store for us. Eric Schmidt is the Executive Chairman of Google. He has written a riveting new book about how Google works, which as a new head of a nonprofit I found an extremely helpful guide to hiring and firing and management and all sorts of things, so I recommend it highly. He's going to talk to us about technology and the future. And then I will try to ask him a few questions about the relationship between his thoughts and the Constitution. This is Eric Schmidt's first visit to the Supreme Court and I think it's very striking that what we're going to talk about tonight is what to make of a world in which Eric Schmidt and his colleagues at Google in some ways have as much power over issues like privacy and free speech and who can speak and who can be heard as Justice Ginsburg and her colleagues do on the bench. So it's a remarkable marrying of Silicon Valley and Washington. It's going to be a great conversation. Please join me in welcoming Eric Schmidt.

MR. SCHMIDT: To say that it's an honor to be invited to speak to you is like the understatement of the decade for me. To be here in this chamber with all of you is one of the highlights of my life. So I hope I can talk a little bit about the future and why we need to be a little bit more optimistic.

All right? So I'm just going tell you the punch line right then and there.

(Applause.)

And it being Google, I've got lots of facts. So I wanted to begin with a quote from 1964. Isaac Asimov went to the World's Fair in New York and he ruminated what the World's Fair would be in the Year 2014, 50 years later. So [the vision for] 50 years later, 50 years ago: "Much effort will be put into the designing of vehicles with robot brains, vehicles that can be set for particular destinations and that will then proceed there without interference by the slow reflexes of a human driver. I suspect one of the major attractions of the 2014 Fair will be rides on small, robotized cars which will maneuver in crowds at the two-foot level, neatly and automatically avoiding each other." I mean, come on, Isaac Asimov. Let's hear it for Isaac Asimov.

So it is possible to imagine what the future looks like and I want to give you some guidelines and some thoughts as to how this is going to happen. There is an explosion in innovation worldwide in many, many ways and you hear about it, you don't hear about it, but the numbers are interesting. The U.S. took 50 years for GDP to double. China did it in 15. It took 60 years for air conditioning -- I grew up in Washington, so I understand the air conditioning -- to get to 80 percent of U.S. citizens. And it took 10 years for 80 percent to have mobile phones. Things
happen quicker now.

And what's interesting is that we've got to talk about this differently. I've been studying the question of joblessness. Now if you talk to a politician, the number one issue for politicians is jobs, right, and how to create more jobs. Do you know how to create more jobs? It turns out it's not big companies that create jobs. It's not little companies that create jobs. On balance, they create about as many as you lose in a competitive market. Net new jobs are created by gazelles: relatively young, fast growing, often venture-funded companies that do something new. Interesting.

Here's a quote for you from an economist named John Haltiwanger who is the sort of authority on this. "We have found that startups together with high-growth firms which are disproportionately young, account for 70 percent of overall job creation in the United States." You want to solve the problems of the U.S. in economic growth, figure out a way to get more innovation and automation. Interesting. Okay.

Now there are some issues here. One of them is scale. There are these new phenomena that are changing everything, so an example would be Amazon, the ruthless efficiency of Amazon, lowering prices, good for consumers, tough for competitors. Right? Or the effectiveness of Apple or the scale of the Schenzhen manufacturing of China. Nevertheless on balance, they create enormous numbers of new jobs which we need to celebrate and of course, they bring prices down. And so one of the questions that I have is as we get these scale platforms, what happens to the world?

So I spend lots of time in Europe. Europeans are obsessed with the fact that the Internet is being defined and controlled by American firms, particularly West Coast firms whose values and political beliefs they don't agree with. And trust me; I just came back from my second trip from China in two months. They're obsessed with the same thing and they blocked us all. So these are serious matters for us to sort of think about.

Another point. Culture and creativity matter a lot. A quote from Jim Cameron, the famous director of Avatar and others: "There's nothing more powerful than someone who doesn't know what they can't do." Right? Same principle. We have to find these people who want to make this stuff happen. And what's interesting is [to] think about it in the lifetime of most people in this room. Marxism has been discredited because Marxism as a concept was a concept that was based on an agrarian view of the world. But in fact, we're now in a knowledge view of the world.
And the only thing that matters is aggregations of people moving knowledge forward to make the world a better place. That's where the economics come from. That's where the politics come from. That's where the moral stuff comes from and so forth and so on. And so competing in that and winning in that will turn out to be incredibly important.

Now remember I said at the beginning I'm going to try to convince you to stop being so depressed. Quote, this is Steven Johnson, "We're living the dream and we just don't realize it." Over the past two decades what have the U.S. trends, that's us, been for the following important measures of social health? High school dropout rates, college enrollment, juvenile crime, drunken driving, traffic deaths, infant mortality, life expectancy, per capita gasoline consumption, work place injuries, air pollution, divorce, male/female wage equality, charitable giving, voter turnout, per capital GDP and teen pregnancy. Everyone here says oh, they're all getting worse.

In every case, the trend is better. In every case, the trend is better and these are the facts. So, in fact, the world is getting much better in dealing with the implication of the knowledge economy. And the U.S. is in a particularly strong position because of decisions made in Washington 70 and 80 years ago. Post-war, a set of very smart people figured out -- this was back in the time when the U.S. was sort of the dominant world economy that what we should do is we should fund research in everything, science, math, whatever. And it was both because it was the right thing and also because there was this looming Soviet threat.

Sixteen or more of the top universities in the world of the top 20 are in the U.S. Hm. That's a serious achievement. It takes decades to build top universities, a hundred years perhaps. And what's interesting is this model, this integrated model between private philanthropy, public philanthropy, things like the National Science Foundation, DARPA, the National Centers for Health and so forth and so on, and the universities and students is producing these rates of innovation. I'm going to take you through some examples of this. But the fact of the matter is not only do we have the right -- in the U.S. -- the right sort of attitude, if you will, some form of capitalism with some social benefits, but more importantly we've got the assets.

And who are the assets? The people. More importantly, the people plugged into universities. Right? So I would not be very interesting if I had not gone to very good universities that programmed me the correct way. And I suspect every single person in this room, their educational level and family, obviously, the culture that you grew up with is a major
determinant of this, why you're able to sit in this room.

So this iteration and constant challenge to the orthodoxy is what invents new things. It's why things are so much better. I was talking to one person who said people don't remember that when you and I -- referring to me, Eric, grew up in Washington, we had one house. We had one car. We had one black and white television. Dad worked. Mom stayed at home and she cooked. Right? We were perfectly happy by the way. Today that would be seen as poor in assets at a minimum. Our expectations change.

So what is Google's view on all of this? So Google's job in some sense is to do new and innovative things at scale. The thing that people always miss about Google is [that] we figured out a way to invent stuff fast, right? Some of it works, some of it doesn't.

So one way for you to understand our strategy and we'll talk about this more, Jeff, is we want to make the Internet as easy to use as your toothbrush and as ubiquitous. By the way, I checked, the toothbrush was invented by a Chinese person. I didn't know that. About 700 B.C. so we're clear. A long time ago. And it hasn't changed much. But the point when you'll know that we're successful will be when you're not talking about the Internet any more.

A hundred years ago, there was this huge fight, huge fight between AC and DC [current], right? National newspapers. Huge fight. Politics. Senators, so forth, corruption, God knows, whatever. We don't have those fights any more. It's there. It's as ubiquitous as the plug that always works.

But the other part of our strategy is moon shots that have very high risk and very high payoff. I'll give you an example. So -- and bear with me, so I'll talk a little bit about artificial intelligence-- but we set a set of computers off without telling them what to think about. They started out as intelligent with no knowledge. We thought that the best thing to subject them to was YouTube, right? If you had a bunch of computers, if you couldn't think of anything else to do with them, you'd have them watch YouTube. So we had them watch YouTube for 11,000 hours, okay? Mind numbing, I know, but they're computers.

What did they discover? I had hoped for a better result, but they discovered the concept of a cat. A cat-- eyes, mouth, tail, motion, the fact that other things which they had not discovered which turned out to be people, like them, their emotions. I wish I could announce to you that in this historic breakthrough that Google had done that we had discovered number theory, Plato, Aristotle. But we discovered cats.
We built a contact lens that has the world’s smallest battery in it and this contact lens has a computer inside the lens, amazing, and it watches for changes in a particular part of the vitreous that’s in your eye which will tell you your insulin state. Literally hundreds of millions of people will use this contact lens rather than the blood pricking and so forth and so on. Kind of neat.

Then last week we announced that we had a team that has taken nanoparticles-- a nano-particle is a very small one. It's a billionth of an inch. It's tiny, tiny, little gold particles-- and coated them with antibodies and figured out a way to attach them to bad cells, cancer cells, and count them in your body. Interesting. And we have a device that actually sits on your arm basically [sic] and counts them. Why is that important? Early detection is the number one factor in cancer death outcomes.

These are innovations that you could never have thought of, but were enabled by smart people and all this interesting technology. I mean I can go on. Think about Google Glass. You’ve all seen the funny glasses and so forth. And people who need to know things and use both hands, surgeons, fire fighters, and police.

Now who are the people who invent these things? They're not normal, okay? Right? I’m going to make a controversial claim. I’m going to say that they’re disagreeable. And I mean that in the nicest sense of the word. They don't agree with the current outcome. They see the world differently. They are divas. Now you've got to create a culture where you don’t just drive these people out. You have to put up with them. And by the way, divas, they have a lot of needs. They need to talk to you right now, right? [They] can't wait.

I was in line in the cafeteria on a Friday at 6 [PM]. We feed people breakfast, lunch, and dinner. And this fellow who is bald who is about 25 years old, his name is Noam, runs up to me and says "I need 100,000 computers, right now." And I go, "What for?" He said, "We're starting general intelligence and we're to be done by Sunday." I said, "Well, what do you hope to learn?" He said, "We're going to learn and invent all of human knowledge by Sunday." I said, "Can you do with 10,000 computers in the first hour?" And he said, "Okay."

[He] turns on the 10,000 computers. His program breaks. He fails. That’s the attitude -- by the way, he’s still trying. In our lifetimes, he will do it and it will be on a weekend having done something crazy and so forth. And he’ll still be bald, the whole bit.

What's interesting about these people is that they live in an alternative
economic universe. They don't live in the same universe that we do. If they're working on this one thing, they don't ever worry about an income because they know if they fail, somebody else will hire them. One, because they're very smart. Two, because they're crazy. And three, they're really, really arrogant, right? So you have to build your culture around understanding these entrepreneurs, that their vision, that what they're doing -- and by the way, so many parts of American system directly are counter to what I just said. These are the people -- they're annoying, okay? We don't want them. They're disruptive. But that is, in fact, how these new ideas come.

Let me take you through some examples of science at what's going to happen and I'll finish up and we can get to our questions. But I wanted to get the programming right in terms of attitude. It's about education. It's about individuals. And it's especially about these kind of slightly obnoxious entrepreneurs that we sort of put up with. By the way, what are their names? Steve Jobs, Bill Gates, Larry Ellison, Larry and Sergey, on and on and on. Right? How many jobs do they create? All of them?

As a start, there are huge things going on in science. We have deep molecular biology gains. We're close to knowing how the brain actually works, the hardest problem of all. There are real improvements of artificial intelligence. We're beginning to understand how humans actually think, work, and play. There's a physics revolution in nano technology. There are new materials. There's a new chemistry of the small (phonetic). We're busy working on all of that and the explosion is just beginning.

I want you to imagine with me some of the things that are going to happen in the next five to ten years. Personalized medicine. The sequencing of the genome and the fact that genetics research and genetic sequencing is falling in cost, faster than Moore's law, means that in five to ten years, you go to the doctor and there will be a routine genetics test against whatever thing they're looking at. Everything will be sequenced. And against those databases which I and others are funding, we'll be able to figure out the exact problem you have for that category of diseases, which turns out to be most of them, and give you exactly the best cure that is known for exactly that combination because people differ in all sorts of ways.

Today, when you go to the doctor, it's oh, we've seen one of you, white male, so on and so on and so on, a complete change the way medicine does. We're very, very close to having the ability to make cells using biological materials. There's a technology called CRISPR which allows them to turn on and off parts of the gene and they've discovered that when looking at bad cells, turning -- sometimes turning them on helps.
Sometimes turning them off helps. That is the basis for many of these evolutions.

Let’s think about transportation. Uber is rethinking public transportation for many of you who use it and it works really, really well. Think about Tesla. Tesla rethought the automobile. You thought that no one had any new ideas about automobiles. Tesla is actually a completely new look at how an automobile should work and they just announced two weeks ago what you could argue are largely self-driving capabilities or close to it.

Think about education. The number one issue in much of American discourse is how to change and reform our educational system which again is very strong at the collegiate and research level and relatively behind in the K-12 levels, as many people here know. A lot of you have worked on this. How would you fix that? Start with the Internet.

It turns out it’s shocking that kids learn differently. Ask any teacher. They'll tell you. This kid learns this way. This kid looks that way. Maybe we’re all the kid that learned the correct way and the ones that aren’t sitting here are the ones that couldn't follow that way. But if they had a different kind of way of learning, they’d be sitting here smarter than us. We don’t know. We didn't run that experiment. Now we can run that experiment. Because now you can figure out on a per person basis what exercises and what learning works for them, at their own pace using [the] modern technology which is available.

Think about automation, the revolution of automation. The repetitive tasks long crippling and dangerous are being eliminated by all of this.

Synthetic biology. In your lifetimes what will happen is people will take your blood and then they will grow a new organ for you. Now I wish I could tell you that this would mean when you’re 100 you look like you were 20. You're still going to look 100, but you're going to have a brand new liver, kidney, or what have you. We’re very close to being able to do this because we can now culture the growth cells, the so-called stem cells from your blood. It's another recent Nobel Prize, all happening. The changes keep going.

Let's think about smart power grids, enormous innovation. Who here would have said ten years ago that America would be the number one exporter of natural gas and oil today and will soon surpass the number one exporter in oil in the world, Saudi Arabia? That’s shocking to me. How did that happen? Because of technological innovation and the way drilling and so forth is done.
We're rethinking cities. It turns out that nine percent of the space of a city is devoted to parked cars. Probably not the highest and best use. People are thinking and cities should become in a positive [way] more dense, more active, more integrated and so forth because that's where a lot of the great strength of cities comes from.

It's interesting. But the one that's really going to change everything--and I'll finish with this example and then talk about some of the implications of this is generalized AI--I'll tell you about a test. This fellow named Alan Turing--who is the computer scientist hero, there's a movie coming out about him called "The Imitation Game" and the technical people here all know about this guy--was a mathematician who broke codes for the British in World War II. He was persecuted afterwards because he was gay and he nevertheless proposed, before he killed himself, a test called the Turing Test. And the idea was that you'd have a person, a computer behind a screen and on the other side you'd have a person trying to figure out which was the computer and which was the person. Now I've lived with this test my entire life. I have important news. It's been passed by a computer. Interesting.

It was passed in June by a computer from the Russians simulating a 13-year-old Ukrainian boy. And they couldn't tell the difference. Now there have been many objections to this result because everyone who has a 13-year-old boy knows they don't say anything. Try a 13-year-old girl. So we're working on it. But in our lifetimes, again, reasonably soon, we'll get 13-year-old girls, too, who talk a lot.

But this notion of making us smarter has a lot of implications because it means that in five years or so you'll have an assistant that's as good as a human assistant that should be able to, for example, read your email and respond to it. Does Eric want to go to D.C. or does he want to go to Philadelphia? Does he like this restaurant or that restaurant? Do you think you'll use that? Absolutely. You don't actually want to spend all your time thinking about that. You actually want to go on with your life. It makes you smarter. So, these breakthroughs are coming and they're going to come relatively fast in the next decade.

So this concept, right, about computers augmenting human intelligence actually dates from 1960. This is not a new idea. We've been working on it in one way or the other for a very long time. So I would argue that the case for optimism is based on a couple of things. 1965, a guy named Licklider [voiced] a modern maxim [which] says people tend to overestimate what can be done in one year and underestimate what can be done in five or ten, right?

Everybody here has a smart phone, right? Ten years ago, none of you
had one. For most people-- interesting thing about smart phones-- 97
percent of people sleep with a smart phone on one side of the bed
plugged in and the spouse or significant other in the other, right? True?

Another statistic. If you're a child and you wake up, you're online until
you go to sleep, 16 hours or whatever. If you wake up in the middle of
the night as a child, you do the equivalent of checking your email. They
are literally connected every minute of their being awake. That's how
profound these things are.

So to me, innovation and smarter people solve a lot of the problems that
we want to complain about. So not only does the data seem to be getting
better, but I think there's a lot of evidence that the future is going to get
better.

And I'll finish by talking about positions for us to take. I think this is
from H.G. Wells, "Civilization is in a race between education and
catastrophe. Let us learn the truth and spread it as far and wide as the
circumstances allow for the truth is the greatest weapon we have."
When you look at the problems that our political leaders are addressing
around the world, in almost every case more education, more
civilization, more of a buy-in to the international system would cure
most of the problems. Right? He was right. We are right.

So principal growth, growth in the knowledge economy and science and
energy make all the difference. What I hope I've done is given you a
sense that we're busy building a future that's even better than the good
future we have right now. Thank you very much. Thank you all and
thank you, Jeff.

(Applause.)

MR. ROSEN: Thank you so much, Eric Schmidt for that
powerful case for technological optimism. You've given us a series of
technologies that will emerge over the next five to ten years from Google
Glass, to contact lenses with sensors, to self-driving cars, to artificial
intelligence, and you've described ways that they may make us smarter
and improve our world.

Because of this august setting and because of the tradition of the Cutler
Lectures, I've been asked by the Seminar organizers to press you on the
constitutional implications of some of these technologies. And it may
seem odd to talk about constitutional implications because, of course, the
Constitution doesn't bind Google.

MR. SCHMIDT: It does bind Google last time I checked.
MR. ROSEN: I brought, of course...now I travel with my pocket Constitutions.

MR. SCHMIDT: Oh, my goodness.

MR. ROSEN: I'm giving you one.

MR. SCHMIDT: Excellent.

MR. ROSEN: So the First amendment says Congress shall make no law. It doesn't say Google shall make no law. And the Fourth amendment talks about the right of the people to be secure in their persons, houses, papers, and effects. But it's been construed not to bind private companies.

So I want to start with ubiquitous surveillance and this is my question. I was at a conference at Google in 2007. It was a Legal Futures Conference, one of the most interesting I've been to. And Andrew McLaughlin, who was then the head of Public Policy and went on to the White House, said he imagined in five years, Google would be asked to take feeds from all the surveillance cameras in the world and put them live and online. And he imagined if you did this, then anyone could click on a picture of anyone in the world, say me, back click on me to see where I was coming from, forward click to see where I was going and basically have 24/7 ubiquitous surveillance of anyone at any time.

And now with Google Glass and flying drones that the police are actually using to track suspects, this is not science fiction. So my question is (a) how will this ubiquitous surveillance emerge? What's the technology that will allow people to track each other 24/7 on Google? And (b) if Google were asked today, if you were asked to make this technology live, would you say yes or no?

MR. SCHMIDT: So first, I'd like to make clear that to both Andrew's comments and would we do this today, the answers are no and no. And if necessary, I'll put N and O on a blackboard so there's no ambiguity here because people get very worked up over these issues.

Now I want to give you a thought experiment and again, I'm not endorsing this, so please don't shoot me, especially not in the Supreme Court. You believe the number one issue in this country is crime. In this thought experiment, that's what you believe. And you would like crime eliminated. And I'll tell you how to eliminate crime. I can eliminate under this scenario all crimes except crimes of passion by a relatively straight-forward plan. Public cameras everywhere in every public setting, not in your home, but everywhere else, public hallways, public
buildings, and so forth, ubiquitous face recognition, ubiquitous person tracking and immediate monitoring. And in fact, we could probably detect algorithmically the use of a gun, the flashing of a threat, the use of marijuana and so forth.

If you want that state, it is at least technologically possible for a dictator or an authoritarian regime to do it. It obviously violates a gazillion laws, right? And I'm not a lawyer, but it's pretty obvious, I think, and you all are lawyers. I'm sure you see why. But I say it because these are ultimately boundary checks. If you're going to survey everyone because of the fear of an individual, you better have a pretty good case that that fear of that individual affects the lives of many. That's my own view. So in our case, we are well aware of this.

And I'll tell you my first story of this which is we -- Larry and Sergey are running a meeting. We look at products. A 24-year-old kid comes in and he's very proud of himself because he's built an app which on a smart phone will predict not only where you're going, but where your friend is going and tell you when you're going to meet up. And I get this white red face and I'm like collapsing at the end of the table and Larry and Sergey decide to play into it. They say this is the best idea we've ever had and making my life just miserable. Of course, they're playing with me. And this kid doesn't realize that this is a serious issue. Because he doesn't care. He's just an engineer.

The concept, however, of us having real time data that predicted not only where you are, but where you're going is a huge set of issues. We ultimately solved this product by releasing this product by allowing it to misstate where you were, right? In other words, it was not reliable. That's how we solved that problem.

Next problem, Google Glass comes along. Every person in this room would like Google Glass to have an app which would tell you the person's name of the person you are speaking with whom you've forgotten. Right? Ah, yes. Hi, Tommy, I met you before. I met you in 1997. I'm so happy to see you again. Yes, yes, your wife's name is Ruth and he goes on and on, right?

The misuse of that app is so horrific in terms of stalking and bad behavior that we have a policy that we won't allow those apps on Google Glass and we actually reject them. So my position and I think Google's position on these things is that just because you can do something, doesn't mean you should. These technologies can be used to invade people's privacy and it takes good judgment and good legal review and so forth to really hold them back.
MR. ROSEN: All right, for me, that is a very persuasive answer. You said you should have good reason to track someone and they should be guilty of a serious crime before you can follow them.

MR. SCHMIDT: And perhaps, how about a court order?

MR. ROSEN: That's my question. How about a court order? Because so far all the choices you've described are things you decided to do as a matter of design. Lawrence Lessig says "Code is law." If you had not chosen to put a bug in the predicted technology or had allowed the name to appear on Google Glass, our society would be transformed. So is it appropriate for us to live in a system where your decisions shape our constitutional values or do we need a constitutional amendment to regulate Google?

MR. SCHMIDT: Well, I hope they would regulate some of the other companies as well, if there were such a constitutional amendment. I think that the privacy framework and these legal frameworks are pretty well established and they're argued. But [what] I've heard about the law-- and again, I speak as the amateur in the room-- is that the law is sometimes not as specific as an engineer would like, so that the legal process, the initial court, the appeals court, the Supreme Court are to some degree about working out the bugs in the rules, right? We really did mean this and we really didn't mean that.

And that's probably the best model to address some of these issues. So for example, if you look at the NSA spying on American citizens in the form of Section 215, there's a robust debate among different appellate courts as to whether that was a violation of the fourth amendment. And again, you covered this, [so] you understand this stuff pretty well. My position is [that if] you collect the data, that data could be used against you, right? So you better be careful as a government when you use your monopoly power to collect data that might be used against citizens.

So my view on a lot of this stuff is I actually don't mind that this data gets collected, but for every piece of data that's collected about a citizen, by a government, I want to have a list of rules as to what it can be used for, when it can be used to avoid violations of privacy, misuse, those sorts of things. And we can debate what those are.

MR. ROSEN: That's great. You're absolutely right. There is a robust debate about Section 215 as well as about even whether 24/7 surveillance by the government would be unconstitutional. Justice Ginsburg and her colleagues have not yet told us whether if you don't have a physical trespass, the police can track citizens 24/7.
MR. SCHMIDT: But let’s use Britain as a better example. So when you have this conversation in Britain, you have a completely different conversation because the trust in the government is so strong that there’s something like three million surveillance cameras in Britain now and when you’re walking down the street, you are being surveilled. They do use face recognition technology. The British citizens, as a general rule, like this strategy.

If you then have the same conversation with Germans, they go crazy, for obvious reasons. So there are differences in cultures and history and legal matters, even among members of the European Union.

MR. ROSEN: It’s a fascinating contrast. You’re absolutely right about Britain and Germany, but should the Brits be allowed to surrender their privacy to the kindly Big Brother in the sky or as the Germans feel is ubiquitous surveillance such an invasion of dignity that citizens shouldn’t be allowed to submit to it even if they want to?

MR. SCHMIDT: I’m on the American side of this debate, but you can imagine that the British have built a legal system that they’re quite proud of and they believe that it’s not been abused.

The Germans have also built a legal system and they have a lot of history of abuse. So perhaps their reaction is grounded in genuine fears of what happened.

MR. ROSEN: Right. Now speaking of dignity versus free speech, as you know, we’re about to see the greatest clash between those values of the 21st century in this new right proposed by the European Court of Justice, the right to be forgotten.

MR. SCHMIDT: Yes.

MR. ROSEN: Which comes from the French droit à l’oubli, the right of oblivion, which is very French. It’s right out of Sartre, you know.

MR. SCHMIDT: Raise your hand if you’d like information that’s on the Internet that’s embarrassing to be removed. That’s okay. I’m part of the list, okay?

So in the U.S., the laws don’t seem to favor that. In Europe, the European Court of Justice which is roughly the equivalent of our Supreme Court, although ours is actually better--
MR. ROSEN: Nicer building as well.

MR. SCHMIDT: Well, I think better for many reasons. In May, it heard an appeal and made a remarkable decision which I'll describe. As it turns out that in Spain, there was a gentleman who 20 years ago failed to pay his taxes on a housing transaction. I'm busy trying to buy real estate in Spain and I can report to you that this is a common occurrence. So nevertheless, he is found guilty. There's an article about him. It's embarrassing to him and so forth. And there's no question as to his guilt. It was 20 years ago.

He sues Google to take this information down and we choose not to take it down because if it's published, we figure it's out there, it's in the news and so forth. He gets all the way to the European Court of Justice and they find, remarkably, that Google as a particular kind of data operator and the other search engines, if the person is not a public figure and if the person -- and if the information is not of general public interest, Google has to take it down. Interesting.

Now by the way, they didn't bother to define to us engineers what is a 'public figure' and they didn't define to us engineers what was 'in the public interest'. And furthermore, it has the force of law and so forth. And they ordered Google to set up this. So long story short, we've created a group in Europe that is busy looking at these requests. So far there have been more than 150,000 such requests. About, roughly speaking, half get granted and half don't. So which are the ones that we grant? Well, the ones that are obvious errors, the ones where it's some innocent person who is caught in. Which ones do we obviously deny? The guy who is a sex crime person, who is clearly guilty and so forth and so on and wants his privacy back. Well, the answer is no.

Now the most bizarre thing about this decision is it doesn't apply to the newspapers. So if this thing about you is taken down, it's still in the newspapers. And Google is opposed to this decision for many reasons. And I've said this many times, but to try to be sympathetic to their thinking; my friends are Europeans and I think most of us would agree are very sophisticated people. And they use the Internet every day. And they don't want what they see as the sewer of the Internet, all that bad stuff, they don't want that stuff around. They don't want to see it. They want the Internet to be kindly. It's a fair reading of what they want.

Now we'll see how this goes because there are plenty of examples of issues. So how would you feel if somebody who was a minor criminal lived next to you? You might want to know. You might not want to know. Under this assumption you would search for it and you would not find it.
Another example, you have a person who is misogynist, somebody who truly hates women, and he publishes his thing and then women criticize him. He's not a public figure. He requests that we delete the women's criticisms. You take it down. I'll give you example after example right in that boundary. And because we'll find some workable compromise and my guess is [that] this right will be around for a long time. If you're a politician, you'd probably rather just blame Google for making the wrong decision, right?

MR. ROSEN: So as an American first amendment enthusiast I agree with Google's opposition to this decision. It's so broad that if someone -- I guess you can't Tweet in the Supreme Court, but if someone went outside after the show and Tweeted that we had had a boring conversation, you or I could object that this violated our dignity and a privacy commissioner would have to decide if we were public figures and if they guessed wrong under one version you'd be liable for up to two percent of your annual income which I think is $55 billion last year per incident. That tends to concentrate the mind. Does this suggest that the Google's hope that information will be free may falter on constitutional and legal restrictions abroad? And should we be concerned about that?

MR. SCHMIDT: I'm not as worried about it as I may sound. I'm more describing how cultures are dealing with the ubiquitousness [sic] of the Internet and I think it's fair, having spent a decade listening to these, that every case is different and every country is different.

The ones we get upset about, we're upset about the right to be forgotten, but we're really upset about -- well, let's think about it. There was a video posted insulting the king by putting shoes on the top of his head-- which is very insulting in Thai-- by a person who put it up for 30 minutes and then left the country. The government at the time banned YouTube for a year. We didn't know about it. We would not have allowed it had we -- we would not have approved it.

Now did they do that because they were annoyed at this terrible desecration of the king? Or did they do this because there was a great deal of criticism of the military generals on YouTube. You decide.

In Turkey, the prime minister does his very best to censor the Internet when it comes near elections and indeed shuts down Twitter during that period. We worry, the right to be forgotten is annoying, but we worry when the political leaders use these tools and these laws to prevent political opposition which is, by the way, why we've had so much trouble
with China. Same reason.

MR. ROSEN: So the two examples you just gave of YouTube videos in Thailand and Turkey show how much power Google has about who can speak and who can be heard. I got interested in this subject again in 2007. The New York Times Magazine sent me to interview Nicole Wong who was then the Deputy General Counsel in charge of deciding what came up and what stayed down on YouTube. And her colleagues called her The Decider because she was literally the person who was woken up in the middle of the night to decide what could be published and what could not.

Now on balance, I think Nicole Wong and her Google colleagues have made really some pretty good decisions about free speech including most recently deciding to keep up the *Innocence of the Muslims* video at a time when President Obama and the president of Egypt were calling for it to be taken down.

My question is simply this: how should we feel about the fact that Nicole Wong has so much power, and as The Decider in some ways doesn’t she have as much power over speech in some cases as Justice Ginsburg?

MR. SCHMIDT: Again, Nicole is very good, precisely because she understands the legal framework and the fight. Google is perfectly happy to fight if we have any chance of winning. But if our employees are going to be imprisoned, then we have another conversation. That’s why the lawyers are in charge of those kinds of things.

So let’s use *Innocence of Muslims* as an example. This is a truly horrific video. It was done by a guy who duped the actors into doing something else. It was dubbed. It was sacrilegious to a region. It was posted. Why did Google keep it up? Well, first place, we actually took it down in three countries where there were riots. Why were there riots? It wasn’t because people had watched it. It was because people on television had said that there was a sacrilegious video and please go riot. So we were used as a pawn for other reasons. We have since reinstated it.

Why did we keep it up or reinstate it? Because it’s satire. If there -- no one confuses this with real religious thinking. If you can’t stand an information market where your religion is criticized, you’ve got a problem. And we’re not going to then take down all of the criticisms of Jewishness and Christianity and so forth and so on in parallel. So you take down the *Innocence of Muslims*, you have to take the others down, too. We’re not going to take any of them down.
MR. ROSEN: I thought it was a great decision and in some ways it was better than the one urged by President Obama. And these decisions are made ultimately by top lawyers like Nicole Wong, but I learned the initial decisions are made by the first responders at YouTube. And I was taken around the YouTube headquarters and my guide said 'see if you can spot them'. And everyone is basically wearing t-shirts and flip-flops and they’re 22 years old.

MR. SCHMIDT: They are young. Just remember that when you go on an aircraft carrier, those jets are piloted by 25-year-olds. There’s a reason why young people run a lot of the world and these people have very good judgment for their age.

MR. ROSEN: I think you’re doing a good job. But it’s a lot of power. Should it be regulated?

MR. SCHMIDT: Well, it’s always attractive to regulate something you don’t like. I have a long list, by the way. And if we’re going to start, let’s start with my list since I have (inaudible) and then we can do your list and we’ll do everyone else’s list.

So what’s the problem with regulating this stuff? It’s called the chilling effect. It’s a chilling effect around speech, around innovation. One of the reasons that the Internet is so controversial is that when all of us who built it, we built it with what was termed “permission list innovation”. You don’t need permission to build a new thingy that you connect to the end of the Internet.

So people have connected toasters to the Internet, right, and refrigerators to the Internet. Imagine if there was a rule that you had to have permission from an Internet bureau before you connected anything. This, by the way, was called AT&T in the old regime. Everyone remember that, broken up in the '80? There’s a reason why those things don’t work.

And the beauty of the Internet is we have this knowledge architecture that links human beings together, all of us including the people we don’t like, and we can’t get rid of them, right? And we’re struggling through evil behavior. I mean when we entered the Internet we didn’t think evil people would be on it. Just our friends.

I did one of the first networks and in my network not only did it only have 26 letters because it didn’t occur to me that there would be more than 26 computers, but the password, I had an email flag which was -R which allowed you to become someone else, just as a whim. I thought it would be sort of cute. That’s how naive we were in understanding the
reality of humanity versus the design.

But that openness is what's brought us to today. Don't cut it down. Don't do anything -- you slow that stuff down and you affect billions of people. Think about it. I'll get on a broad band push. Most of the problems in the world could be solved by more access to information and more critical thinking. Everything that we do, right, to get more connectivity -- my favorite current example, is how would you like to topple the regime of North Korea? So I went to North Korea and I've been studying the prison camps. And the prison camps, by the way, are as horrific as the gulags under Stalin or the concentration camps under Germany. And yet, these people have nuclear weapons.

Well, a key assumption in North Korea is that the leaders are infallible which means they don't lie. But of course they do. So a relatively little bit of sowing of doubt would probably have a better regime change than anything we could possibly do in any other military or other approach. Information is very powerful, especially when it exposes leaders who don't want to be exposed.

MR. ROSEN: One more question about comparative constitutionalism. I need to thank you, first of all, for the fact that Google's Ideas Lab has just given a great startup grant to the National Constitution Center.

MR. SCHMIDT: Yes, we're very happy about that.

MR. ROSEN: It's to create a constitution-drafting lab so that people from around the world who are drafting constitutions can come and learn about the best models and engage in constitution-drafting exercises. And we've created a great interactive with Constitute-- which is the leading collector of global databases, which Google also supports, where you can click on any provision of the Bill of Rights and see the spread of that liberty across the globe. So you can see how the Japanese Constitution cut and paste the American Fourth amendment which General MacArthur did after the war. It's very exciting. We're looking forward to really becoming the national center for debate, education and ideas about how to draft constitutions. My question is first are you going to continue to support us, since this is a very good thing?

MR. SCHMIDT: We've just started. We'll have to see how well you do. If you don't perform, we will stop.

MR. ROSEN: Good. I'm sure that we will do a great job. The serious question is how can a lab like this draw on U.S. wisdom to
encourage countries abroad to adopt free speech-friendly, privacy-friendly constitutions rather than the opposite?

MR. SCHMIDT: I would say that one of the great American hegemonies has been the export of the Internet to these countries because we are arrogant enough as citizens to believe that we’re right and they’re grappling with open architectures, open communications, the empowerment of individuals, especially people who have never had a voice before.

Imagine if the Chinese had invented the Internet. It would be run very, very differently. There would be censorship of all sorts of kind, deeply embedded. So in some sense the industry and the community and many, many people who have made this happen, they’re on your side pushing this model so the values of free speech and openness and sort of both religious diversity, but also tolerance which is really sort of one of the constitutional principles of America.

I think another thing that’s going to happen is that the law will change because computers will get good enough that they’ll be capable of being reasonably good paralegals. They won’t have the kind of judgment that you all do, but they’ll be pretty good assistants. So all of a sudden the question I always like to ask is what’s the best practice here? You’ve already asked that question of a computer and it can do a summary for you of what the best practices are.

So the framework itself and its underlying values are unabashedly open in America and then the tools that are coming will allow you to synthesize best practices. The languages in human systems there aren’t that many variants. For example, systems that don’t have independent courts are corrupt. Countries that don’t have independent policemen are corrupt, right? On and on and on. Countries that don’t have transparency with how they spend money are corrupt and poorly run. It’s true whether they’re kings or democracies. So over and over again there’s a set of principles like that, but I think we can, in fact, look at best practices and discuss.

MR. ROSEN: I would like to keep going all night, but I need to go to the audience. So my last question is this: when you think about the right to be forgotten and the fact that we believe that the American free speech tradition is the correct one, is there a case for a little American free speech imperialism?

MR. SCHMIDT: Well, I’m somewhat in between the two because there is speech that is hurtful. I’ll give you an example. You have a teenage child who does something stupid and everyone who has a
teenager or was a teenager has at least one memory of this. Do you really think it’s fair to judge that person by that error for the rest of their lives? As a joke one day, I announced that the new policy should be that people at the age of 18 should change their names. That wasn’t me. But with face recognition, that doesn’t work. So I think we’ve got some issues as a society to address.

There is the Barack Obama theory that since everyone smoked dope, it was fine for the president to smoke dope. But I’m more on the personal choice side and I think that people should have a right of some kind for respect. One way to solve it is not with censorship but by de-ranking. Literally by saying things that you did 30 years ago that were more or less embarrassing, but not very relevant today are probably not as important as the good and bad things you did over the last five years. My guess is society will evolve to that.

MR. ROSEN: Absolutely fascinating. I think we have just a bit of time for questions and we don’t have mics, but we have a room with great acoustics, so, sir.

PARTICIPANT: You had a lot of positive trends. What is your assessment of the trends in income and equality?

MR. SCHMIDT: That’s a very good question. The question was what is my view on income equality? So here’s roughly what’s happening. There’s a hollowing out of what’s called the middle. And the elites, people who are highly educated, everyone in this room have increasing returns to education. But the traditional middle class, think of them as the person who worked in a factory, those sorts of things, those jobs are largely going away because of automation. And there are new jobs that are popping up, but they’re typically in service industries and they’re typically at lower wages. And we see this. It’s not a new factor. It’s been going on for 30 years.

And there’s evidence that computers are exacerbating that gap. So there’s a worry that the future I’m describing will have a small percentage of people who have been able to master all of this and then a much larger group of people who either because of motivation or personal problems or lack of education or what have you, just can’t get there and they get stuck in these service jobs and they can’t get out.

There’s a huge debate over what the magnitude is. Economists don’t agree. So again, when people don’t agree, my position is [to] just use my opinion or your opinion. That’s my joke. And my opinion is that the technology that I’m describing improves the dumb people’s opportunities, too, to put a point on it.
When people are so elitist that they say those people can't do anything, they're wrong. People are trapped in bad systems and when you give them the kind of tools that I'm describing-- because the nature of human existence is innovation (even if it's just local in their family)-- people are remarkably clever. There are very, very few bad eggs. That's called reciprocal altruism in philosophy. So I would say that these transitions are difficult, but I'm very optimistic about it.

MR. ROSEN: Yes, ma'am.

PARTICIPANT: (inaudible)

MR. SCHMIDT: So Google has been careful not to take too strong a position on this. So let me give you my personal answer. I am very worried that additional regulation will slow things down. And I don't understand the legal argument of Title 1, Title 2, although it's been explained to me five times by lawyers, but it has to do with who has the force of law.

So a better outcome would not be Title 2, but come up with other regulatory mechanisms that were lighter, that would achieve this. Part of the problem with this debate is what's the current harm? And you don't want to regulate ahead of a problem. You want to regulate when you have the problem because premature regulation then drives everybody crazy. It cuts down investment.

Here's my answer on this. And my general answer is the government should do everything it can to get our citizens connected with greater bandwidth. The best way to do that is tight and hard competition. If you don't have a competitive choice, for example, in my home in New York, I have a choice between Fios, from Verizon, and Time Warner Cable. You may or may not have that here in D.C. They compete with each other. They're brutal competitors, right? I've switched between them. I can tell you all about them. That's called competition. That keeps them honest.

So every barrier entry to a competitor should be removed by regulation and let the market fund this. You're building the super highways of the sky, whatever metaphor you want. There's huge money to be made. There's huge capital coming in and I worry that excessive regulation would slow that down.

MR. ROSEN: Yes, sir.

PARTICIPANT: Everything Google does relies on electricity, doesn't it?
MR. SCHMIDT: Yes. We love electricity.

PARTICIPANT: And you're quite right about where is the (inaudible). My question is what are you doing, or what is anybody doing, about developing batteries that would -- don't last four hours for this one, and eight hours, but they last a week?

MR. SCHMIDT: There are two solutions -- the question was what are we doing about batteries and lasting a week and so forth. About your smart phone. The number one consumer of power in your smart phone is the screen. The number two is the wireless network. So more power efficient screens and more power efficient wireless networks are the biggest contributors to battery life. It turns out it's not a better battery, but a less -- but less demand, if you will, and that's where we're going.

There are ten or so different ways of taking lithium batteries and making them much longer lived and those are all coming. What's interesting is there's a looming shortage of lithium because lithium is so useful and it's largely mined in a country in South America, it's incredibly useful for electric cars which is something we haven't talked about, but will be very, very voluminous relatively soon.

MR. ROSEN: Yes, ma'am, in the back.

PARTICIPANT: (inaudible)

MR. SCHMIDT: I've actually read that and I'm alarmed that people have decided that science isn't correct. So to review science, science is an iterative process of proving and reproving and reproving and reproving. So for example, climate change is clearly real, although there are debates as to the rate and how to address it. Right? I can go on. There is sort of anti-intellectualism that is implied by that amount of political speech. It's very damaging to the future of our country.

Now there are plenty of debates within science, right, but let's acknowledge that science is correct. If we have to go back to the birds and the bees, evolution and so forth, then we just have a different conversation. We're not going to make any progress, but if you really believe that, then you probably shouldn't listen to the weather report, because that's based on projections. You probably shouldn't fly in airplanes because that involves all sorts of physics. And you probably shouldn't take any drugs because they might harm you.

MR. ROSEN: We have time for one last question. Yes,
PARTICIPANT: (inaudible) What would it take for Google to take the more (inaudible) role (inaudible).

MR. SCHMIDT: So I personally have a large foundation that's doing work in this area and Google has -- this is sort of a long answer and a short answer. I'll spare you the long answer.

One of the more interesting things that I've discovered recently is that the cost of a low carbon energy environment over the next 40 years is roughly the same as the cost of a high energy carbon environment. Interesting.

The reason is that these plants have to get replaced and technology moves forward. We're at a situation now where solar and basically wind and certain forms of solar, PV solar, are near price parity with their -- they're effectively cheaper than coal, roughly equal to coal and roughly equal to natural gas. There are issues because they are intermittent, which is a technical problem which we can understand. There are solutions there involving batteries and redistribution and internet of energies and so forth and so on, but over a 40-year period you have a choice. Do you want to build a high carbon future or a low carbon future? I think the answer is pretty obvious, based on the science.

There are a lot of people working on sustainability and trying to study how real sustainability works. So the recycling of materials and things like this, and I funded some initiatives in that area personally. So I think there's every reason to believe that there are going to be a lot more people in the world. Our carbon intensity is going to go down, not up over our lifetimes as a result of these changes and that will be okay.

It requires action. So my plea to you is many of these problems are political in nature. These are problems that are not unsolved. There are plenty of problems in my world that are unsolved, like we still don't know how to answer the hard questions in AI and things like that. But we do actually know how to organize more sustainable systems, making things more energy efficient, making the world a better place from an energy perspective. Why don't we just do that?

PARTICIPANT: Hear, hear.

MR. ROSEN: Eric, a round of applause.

(Applause.)

MR. ROSEN: Eric Schmidt, you are not a lawyer, but here in the Supreme Court you have proved yourself extraordinarily
thoughtful about the constitutional dimensions of the remarkable technological innovations over which you are presiding at Google.

MR. SCHMIDT: Thank you. Thank you. That’s very kind of you. And I want to thank Justice Ginsburg and all of you who put this together. This kind of a conversation is both a great honor to me, but I think it’s important. If you look at the history of America and you study the great debates, this is another one of the great debates, not just here, but all around the world. Let’s get it right.

MR. ROSEN: In that spirit, I appoint you an honorable fellow of the National Constitution Center.

MR. SCHMIDT: Thank you very much.

MR. ROSEN: Please join me. Thank you, Eric Schmidt.

MR. SCHMIDT: Thank you.

MR. SALLYER: I’m Stephen Salyer, president of the Salzburg Global Seminar. I wanted to thank all of you for coming and being a part of this conversation tonight. Special thanks to Justice Ginsburg and our speaker and moderator for a really wonderful evening here at the Court.

Second, I want to thank Tom Mansbach and Bailey Morris-Eck who have been real leaders in developing the Cutler Center; a special salute to Tom who has helped us support this event and the reception that follows.

As many of you know, the Cutler Center offers opportunities for senior judges and lawyers, rising young lawyers, and even those like Eric Schmidt who didn’t obtain law degrees, to explore leading edge issues in international and private law.

In February, ten of the nation’s law schools will each send to Washington five of their top students who will present papers as part of a two-day program at the United States Institute for Peace. In 2016, we’re laying groundwork for expanding this program to include a week-long program in Salzburg which will build on the programs that Lloyd Cutler used to convene, where he brought very senior players from across the world together with the rising stars who are going to shape the future. I think we’ve probably got some Cutler Fellows sprinkled through the crowd tonight from our last two years. We are excited to welcome to Washington in February the next 50 Cutler Fellows and building them into a worldwide network for very positive change.

For those of you who are free tomorrow morning or looking for
something to do between 9 and 10:30 in the morning, we'll be over at National Public Radio, where we will continue part of this conversation, but with a little different cast, the question: “Is there a right to be forgotten?” Adam Liptak of the New York Times will be our moderator for that conversation. You are all invited if you'd like to join us.

As always, we rely on the friends of the Salzburg Global Seminar to make these programs possible and to spread the word about our unique work. We thank all of you for coming tonight and invite you now to move next door for a reception where we can continue to build this wonderful global network of the Salzburg fellowship. Thank you again.