

# CONVERSATIONS

WITH BILL KRISTOL

## Conversations with Bill Kristol

Guest: Peter Thiel, Founders Fund

*Taped July 29, 2014*

### Table of Contents

**I: The Story of PayPal 0:15 – 18:11**

**II: Against Conventional Wisdom 18:11 – 36:30**

**III: Facebook 36:30 – 43:07**

**IV: An Innovation Slowdown? 43:07 – 1:04:28**

**V: The Need for Growth 1:04:28 – 1:13:57**

**VI: The Higher Education Bubble 1:13:57 – 1:36:39**

### **I: The Story of PayPal (0:15 – 18:11)**

KRISTOL: Welcome back to CONVERSATIONS. Our guest today is Peter Thiel, one of America's leading investors and entrepreneurs and also, as you'll see, a very interesting thinker about American – the American economy, American business, American society, American politics. Peter, thanks for being with us.

THIEL: Thanks for having me on the show.

KRISTOL: My pleasure. Peter, we met a little over 25 years ago, I guess when you were an undergraduate at Stanford, I think, and you were active in politics and looking forward to going to law school. And here you are. You're not a politician and you're not a lawyer. What happened?

THIEL: Well, I'm still very interested in all these sorts of questions. But, yes, I started as a very conventionally tracked career – Stanford undergrad, Stanford law school, worked in a big law firm in New York for a number – for a while, and then a big bank in New York. And sort of had this rolling quarter-life crisis where I finally concluded that I should – that it made sense to try to do something where with your life where if you wouldn't do it, it wouldn't happen versus these tracked careers where if you don't do it, there are a hundred other people who will take your place, do the exact the exact same thing.

And in the late 90s, I moved back to California, got involved in the Internet boom, started a company called PayPal. Four years later, it was bought by eBay and then since 2002, I've been a sort of investor helping people get started with a number of different type companies. But it's been a wild, wild 25 years.

KRISTOL: That's great, that's great. So talk a little bit more about you're there in New York, you're in the legal, financial world. And what was dissatisfying about that and what was the attraction of going to Silicon Valley and was there any particular thing that spurred the move?

THIEL: Well, it's – it is – what's amazing about these top U.S. institutions in the U.S., whether academic or law firms, banks is that from the outside, they're places where everybody wants to get in. And then once you're – once you're in them, it turns out that it's always fairly constricted. You have enormous numbers of very talented people. So that's the aspect that's very positive. But then it's also, it ends up being – involving a ferocious amount of competition for what I think are often relatively small stakes. Where at Sullivan & Cromwell, the New York law firm I was at, you have eighty very talented people start

every year, four or five might make partner after seven or eight years. And it was very unclear even for the people who became partner how much impact they would have on the broader world. So you have some of these people who are incredibly ambitious going in, and sort of gradually gets wrung out of them over time.

KRISTOL: And entrepreneurship struck you as different.

THIEL: I think, I do think that Silicon Valley, the technology industry, is still an exception to this where you know we're living in a society, where the frontier is not as wide open as it was, was in the 19th century. Geographically, it's maybe you can still go to Alaska but aren't that many places one can move to where there's sort of wide-open space left. Technology, I think, is one place where that still exists and where it is possible for a small group of people to start something new that has a big impact on the world as a whole.

KRISTOL: So how did that happen with PayPal? Did you sort of decide I want to go to Silicon Valley? And you've been of course to Stanford and reconnect with friends there and then figure out what you wanted to do or did you actually have the idea for PayPal first and then –

THIEL: Certainly the fact that I was at Stanford was quite helpful, since it is probably the university that's most embedded in this and a lot of friends I had were getting involved in the Internet boom of the 90s. We had – you know, these things are always, it's always somewhat of a process, there's some serendipity, there's some planning. We had this idea I think from very early on, to create new payments company. There were all sorts of questions what one would have to do to make that work. A number of these efforts had already failed by 98. And so we learned from some mistakes –

KRISTOL: And the "we" in this is?

THIEL: Myself. Max Levchin was my co-founder and there were sort of three or four other people involved early on on the team.

And it was a crazy process coming up with the right idea. Hit on the idea of linking money with email, which was a simple idea. It turned out to be very hard to implement because of all the fraud challenges one had. And then, and then you, then it gradually sort of scaled very quickly.

We started with 24 people using PayPal in October of 1999 – it was the 24 people working at our company. And it grew by about 7 to 10 percent compounding daily. So we were at a thousand people by mid-November. 2,000 by December 31, 100,000 by February 3rd, 2000. A million by mid-April. And then it kept scaling. Today, the PayPal service is probably on the order of 120 million people, people using it.

So you, I think Einstein apocryphally said that compound interest was the most powerful force in the universe. And if you can get something that has this snowballing effect going, it's very powerful, whether it's in technology or culture, politics, all sorts of aspects. You want to get positive feedback, things like that, not things where as you make progress, every incremental step gets much harder. You don't want to have sort of trench warfare on the Western front in World War I where you can make a push for maybe a hundred feet. You want to do something where as you make progress, it cascades.

KRISTOL: And what was at the core insight was people are going to want to pay for things, obviously. But that was already happening or not really?

THIEL: The core insight was that most people are not set up to accept credit card payments. In the US, there about three million people who have – are set up to accept credit cards, there were about 150 or 200 million people with email addresses. So if you could link money to email, then anyone with an email could receive the payment. And it was a way to start a payment system from scratch. Normally, there's an enormous counter-party challenge where you need to get both sides involved simultaneously. So by linking money to email, you could send money to someone with email who has not yet signed up with PayPal and then they click on various links and then there would be incentive to sign up so they could

collect their money. And so you want to have sort of a one-way payment system where it could go to people who are not yet officially part of it.

KRISTOL: Those are people selling things on eBay mostly or at first or?

THIEL: It took off on eBay and then we sort of directed a lot of the focus on the product towards eBay very, very quickly. There were a lot of competitive challenges. One we ran into – eBay had its own competing service which is an uncomfortable thing. So it was like this giant store that couldn't get its own cash register machines to work. And we had a competing service, ours, that was offering the cash register machines that worked better. There were fraud challenges, there were regulatory challenges. But there was the underlying need for the product was very great and that enabled us to sort of power through a lot of that stuff.

KRISTOL: And defeating other competitors. I mean, how does that work? Surely, other people thought gee I can do that too. Do you just have to get the snowball going fast enough that you become dominant in the field? I don't say just, but is that the key?

THIEL: Well, I do think in business one of the critical things is that you don't want excess competition. So if you have lots of people doing the same thing, it's very hard for you to have a good business. If you're the 20th person selling pet food on the Internet, it's unlikely you will have a fantastic business. Or opening a restaurant in DC or San Francisco is a terrible business.

And, so, good businesses, I think, always have this extremely unique character. You can certainly get it by being sort of a first mover where you grow incredibly fast. And so if you are the first one and you grow quickly enough that no one can catch up, that can work. And that was, I think that was our original plan, was just to have this exponential growth. And so even people copied us six months or a year later, they would never catch up.

In practice, I think it's more important to be the last mover than the first mover. Sort of the Capablanca line in chess that to begin, you must study the end game because that's – you win if you're the last mover, not if you're the first mover is a tactic, the last mover is what really matters.

And I think the key – a key component there is often to have some kind of technological edge. It was not obvious what that was initially with PayPal. It turned out there was an enormous amount of fraud on the Internet and there were some technological solutions we came up with. And the existence of this fraud deterred a lot of large competitors from entering the space – large banks, large institutions where the consultants would tell them there's too much fraud, you can't do this. And they ended up launching products that just didn't work.

KRISTOL: I mean, I don't know much about it but just stepping back and thinking about it, do you think that the credit card companies and/or the banks I guess whom hold the credit cards, would have thought, yeah, we can do this, we're pretty used to processing payments, why should we let some upstart company seize a huge market here.

THIEL: You know, it's large – large corporations are probably better than the government, but in many cases are quite dysfunctional. So, yes, in theory, if the large corporation were a monolithic institution with a single-ness of purpose, that's how you'd respond. And the CEO of Visa might say, you know, why is this happening? But then in practice, you have incredibly – incredibly many bureaucratic levels on the inside.

There was – Citigroup tried to launch a competing service but the people inside it sort of sensed this was unlikely to work, and so you end up with less talented people working on it. The smarter people in these organizations always know not to work on things that are unlikely to succeed. And so you have all these complex internal politics that make it surprisingly possible for small companies to emerge and not to be just squashed by larger organizations.

KRISTOL: Did you all envision it? You sort of envisioned, obviously, exponential growth, and you understood that would give you success. But you pretty much envisioned filling the niche it filled or was it something you adjusted in a big way as you went forward?

You read these business books and people say, “Oh, it was totally unanticipated, it worked out totally differently. I was very agile and had to adapt to circumstances.”

THIEL: Yes. I always – you know, there was definitely a lot of adaptation. At the same time, I think there was this founding vision of creating a new payment system on the Internet and that sort of drove it all the way through. And so I’m a little bit more partial to the side of having a long-term plan and using that as something you build around versus the sort of random walk theory that dominates where you iterate very quickly and you have no overarching vision.

When I was a chess player, an intermediate level chess lesson was always that a bad plan was better than no plan. And I think something like this is true in business. We always say that you can’t have a plan, you can’t have a plan especially in technology because things will be so different in five or ten years, who’s to know what it’s going to be like? But I think it’s always worth asking those questions.

Most of the value of these businesses accrues over the very long-term. There was a financial model we did on PayPal in March of 2001. We had been in business for 27 months and we included that about 80 percent of the value of the company came from profits in years 2011 and beyond. And that’s sort of – that’s analytically true of almost all these businesses – the value exists far in the future.

And so one of the critical questions is really will you still be around ten, fifteen years from now because that’s where most of the value exists. And so it is – you know the long-term questions have a qualitative nature. Durability is at least as important as growth.

KRISTOL: I’ve heard you talk about business in the past. You used the term *founders* and *co-founders* maybe a little more than most people do and maybe the term *entrepreneur* a little less. I guess *entrepreneur* has a certain – it needn’t be this way I suppose – but has a certain feel of making it up as you go along, right. You know and *founder* has a little more of a feel of setting up an institution that’s there to last.

THIEL: Yeah, so, I definitely like *founder* more than *entrepreneur*. I think *entrepreneur* has – it’s a bit of an over-used term. So it’s a – I had a conversation with a friend a number of years ago and asked him, “What do you really want to be doing in 5 or 10 years?” And “It’s very clear, I want to be entrepreneur.”

And so it has sort of the same quality as “I want to rich, I want to be famous.” And I think a better mindset for these businesses is that there are some very important problems that you’re trying to solve. And it turns out that a new business is a form in which you solve that problem. You could also solve it perhaps in a large corporation, if it’s not too dysfunctional, you could solve it in a government context, in a nonprofit context. But that it’s driven by important problems you’re trying to solve, rather than, say, having a line item on your résumé that says *entrepreneur*.

KRISTOL: And once you found it, then I guess as you say, the continuity is so important or the durability, I guess. And that you hadn’t – it’s amazing you did this – did you all have much experience with managing people, things. I mean, you had been a lawyer and you’d been a –

THIEL: In practice, in practice, most of the founders in Silicon Valley have shockingly little previous experience. The dynamic that tends to be very important is whether the initial teams work together really well. So there’s often some sort of pre-history where the people had known each other, had worked together for a while. That was certainly the case at PayPal.

There’s – but there is – there is sort of this very strange element where talent often seems to beat experience, that when people are experienced, there are certain things they know better but they’ve also

learned many mistaken lessons. They've developed a lot of anti-theories, e.g., theories on why things can't be done, why certain ways can't be done.

When we started PayPal, we were told that the fraud problem was going to be overwhelming and we sort of ignored that advice. It turned out to be very big but then you could sort of get on top of it, whereas someone who had come from a traditional payments background would have said something like this was never going to work and you would not even try.

So I do think there's an element – an element of that that's very big. I do think, you know, I think the founding moments of these businesses are quite important because there's a degree of freedom you have at a founding moment that you do not have later.

So you can say that the founders of the United States, the Constitutional Convention, had a degree of freedom deciding what to do that is not clear whether we have later. So you know, you have, Alaska has the same number of senators as California, even though California has 50 times as many people. And we can sort of debate whether that's a feature or a bug. But it's not going to change.

And I think something very – the – sort of the – a lot of the key DNA in these companies gets set very early. And so there is an extraordinary degree of freedom around these founding moments. And then sort of, and then years later, if you set it up well, it can last for a long time. If not, it probably won't.

KRISTOL: I'm struck, in things I've been involved in which are the government and magazines, *The Weekly Standard*, that hiring the right people is the single most important thing, I think one of the very most important things one does. It's not something that people focus on much, though. And often it's almost considered the tenth most – you know, you focus much more on all kinds of other things. And then incidentally you have an interview, a job interview, which you put off until 5:30 in the afternoon because you're so busy all day. I mean –

THIEL: Yeah, people pay lip service to talent being important but certainly, certainly it is probably the all-important thing in these early organizations. And what I think is quite different from say an academic context where it's always individual talent and it actually – in a corporation or when you're founding a new institution, it's often very critical that people be able to work together reasonably well. And so it's not good enough to have a group of brilliant, professional people who all intensely dislike each other. Maybe that can work in a law firm, but it probably does not work in something where you need sort of a very intense cooperation to do something.

I think the only, you know, the only rough analog is something like team sports. But that's sort of you know the rules are very set and that's sort of a much more controlled context. So getting a group of very talented people to work together is quite important. I think the prehistory ends up being –

A very important question I like to focus on is how long have the people known each other, how often have they worked together in the past? You know, if you decide to start a company with someone you met a week earlier, it would be like getting married to the first person you met at the slot machines in Las Vegas. You know, you might hit the jackpot but it's probably a bad idea.

## **II: Against Conventional Wisdom (18:11 – 36:30)**

KRISTOL: And I think in hiring people, you had sort of your own distinctive questions you liked to ask? I remember hearing that once.

THIEL: Well, we – you know there sort of different ways I'd iterate on this over time. But we certainly focused on all these – on a group of original, talented thinkers.

The question I've – I don't think I was asking this one at PayPal, but the one I've come to like asking is, "Tell me something that's true that very few people agree with you on." And it's a – it's a surprisingly difficult question because it requires, you know, we've been taught that all truth is conventional, that it's

simply what everyone knows to be true universally. And so it sort of very much cuts against the grain of the way people think about things.

But it's also the case that brilliance is hard, courage is in even shorter supply than brilliance. And in some sense the correct answer to that question is one that the interviewer would presumably disagree with. And so it always –

KRISTOL: What answers do you usually get? That seems like an interesting question to ask young people.

THIEL: You end up with – you generally – I'm not even sure it's that good a question because people are so bad at answering. You normally want questions where people are better or worse.

You often – you occasionally get good answers but most of the time, it's some conventional truth that people say is even more true than anybody thinks. So it's like, "I'm worried about climate change, and I'm even more worried than everybody else" – people are not worried enough.

Or you get answers, you know, you sort of get, very trivial, esoteric answers where it's something that is certainly an unusual truth but perhaps not a very important truth about things. I do think the strongest ones are ones that somehow cut against this grain.

And I think one of the things that I've come to sort of really appreciate over the years is how powerful these psychosocial forces in our society are that basically push people's thinking into a homogenizing kind of direction. And it's on the level of the larger economy in the U.S., we've had this extraordinary history of bubbles in the last few decades, which clearly had a psychosocial component where people were not thinking very much for themselves. You had an Internet bubble in the 90s, an even crazier and more destructive housing and finance bubble in the 2000s. And I would argue even dumber and bigger and worse government bubble in the 2010s. But all these things were sort of characterized by extreme lack of critical thinking, assuming that other people had figured things out and deferring to that in one way or another.

And so whenever you see a situation where it's very hard for people to think critically on their own, you have to sort of wonder whether there's something very off on this. There was – and I think you can often get these unconventional truths through means – I'm not sure what the right terminology is, but you could sort of describe it as a political approach where you sort of ask the question what are the things people can't say or can't think. And maybe there's sort of a natural or metaphysical approach where you just try to figure out the fundamental truth of things. And I always have a preference for the political approach because I think it's so much more straightforward, and kind of a shortcut.

So by way of example, in the last decade in Silicon Valley, 2002 to 2008, there were basically two major things one did as a venture capitalist: you invested in the next generation of Internet companies or you invested in clean tech. And the next-generation Internet companies generally worked pretty well. Clean tech was sort of an unmitigated disaster. And the critical question was, how could you have figured this out early?

And the sort of the scientific, natural, metaphysical type of approach would have been to evaluate every single clean technology on its merits and then you have to figure out, were people lying about it, were they distorting the results, how far were things off? And one could have done that, but it would have been, would have been extremely hard to figure this out.

The political approach was to realize that there were sort of a set of intensely held conventions that people could not question. There was – and there was something – you know, there were sort of things around it involving social status, it seemed cool for people to be involved in this, and they were not that interested in whether it made any sense. And that's sort of – that's sort of why clean tech was not just an initial set of bad investments but why maybe ten times as much good money was thrown after bad in the 2005-2008 period.

KRISTOL: Do you have the sense that this psychosocial conformism, or herd mentality, or whatever you want to call it, is stronger now than it was 20 years ago, 40 years ago, 60 years ago or is it just the way democracy is, kind of a Tocquevillian you know –

THIEL: I don't have a – it's always hard to compare. I do worry that there are elements of it that are somewhat stronger.

We're living in a sort of more globally connected, more transparent world; it often seems more dangerous for people to express unconventional ideas because there's a record of that and so people sort of maybe are censoring themselves more than they were – more than they were 50 years ago. There is – and so it is – there are a lot of things where I find that somewhat worrisome. You know, there's the – I'm not going to get this quote exactly right, but there's the Nietzsche line that madness is rare in individuals but in nations and crowds of people, it's sort of the rule. That was before Nietzsche himself went mad.

But I think there is – so I do think there's something, there is something very peculiar about the history of the bubbles that we've been experiencing in the last – in the last few decades, which is quite anomalous. You know there was an enormous bubble in the 1720s, there was one in the 1920s. But we've had maybe four or five of roughly the same magnitude in the last – in the last 30 years. And so I do think if you were looking at EKG chart of the health of the world and you started seeing all these up-and-down spikes, it might be a mistake to say that everything is normal, and very sane, and under control.

KRISTOL: Yeah, it does seem – I was struck on this – I always try myself to begin with a contrarian point-of-view or a challenge to whatever everyone is agreeing on. You know, just thinking politics, at least in my experience, works out fairly often to be the opposite of whatever thinks. Not always. And maybe one problem here and this is that of course it does often – sometimes conventional wisdom is just right and these forces truck along. And then of course, being contrarian does you no good. And maybe if you're one of the few contrarians, you actually get held out for – it's just so much easier, I think you're right, to be part of the crowd.

THIEL: It is, although I think, I think the relative impact is unlikely to be that big. So if you're one of sort of a very large crowd that's trying to do something, there's sort of always this question, what's even the point because it'll happen anyway, you won't make that much of a difference relative to what you could otherwise do. And so I do think it's always – you know the question has two parts. It's tell me something other people don't believe in *and* that is true. So we do you want the intersection –

KRISTOL: That is important, yeah. And you're saying that actually is a good predictor for individual's ability to contribute to the success of the enterprise, not just an interesting intellectual quirk that some people have that they can sort of see around corners or are willing to kind of take an opposite point-of-view?

THIEL: Well, I don't think it's sufficient. You certainly want to have all sorts of other personality traits that work out positively. But I do think the power of conventional thinking is incredibly great. Sort of one way of – one other way of getting at this question: are these psychosocial forces greater now than they were in the past? One very odd aspect of Silicon Valley is how many of the founders at these companies seemed to be suffering from mild forms of Asperger's or seem to be sort of socially somewhat awkward.

And I always think that we should interpret this is an indictment of American society, where what does it say about our society, where anybody who is sort of the well-adjusted, normal person is deterred from having any unconventional thoughts very, very quickly. And so sort of the personality type that seems to be extremely bad at founding these companies is someone who gets an MBA from, say, Harvard or a place like that. And if you think of a lot of the MBA programs as these hothouse environments in which you have extremely extroverted people who have no strong convictions of their own, get together for two years, at the end of which, they basically are all looking to each other for what to do and they all end up trying to sort of ride the last wave.

There was a study done on Harvard Business School where they found that the largest number of people systematically went to the wrong things. So in 89, they all wanted to work for Mike Milken, just a year or two before he went to jail. They were never interested in technology except 99-2000, which was probably the two worst years to go into it. 05-07, it was all private equity hedge funds, real estate. And so I do think that's – that is a very powerful factor in our society.

KRISTOL: Yeah, that's interesting. I want to come back to some of these important considerations. But I just think on this question of fraud, which I think is so interesting when you say the conventional view of these or some other place like that was the fraud problem was too great and dealing with all these individuals. I guess that was the point. You could deal with a restaurant or with Bloomingdale's because they have their own systems in place. But just some guy selling something to someone else on eBay is so hard to monitor.

And if I'm not mistaken, your solution to the fraud problem both enabled eBay to be the great success it was, but also laid the groundwork for further companies that you were involved in founding. So I just think that's an interesting example. How did you solve the problem, actually? I mean what ways – did it almost trip you up or was just didn't turn out to be as big as people thought and then what was the aftereffect of that?

THIEL: Well, here is a good example of a somewhat unconventional solution that we came up with, where the conventional approaches to fraud were either, number one, that you had a human team that investigated everything.

KRISTOL: So, fraud here is just normal credit card fraud?

THIEL: It's people stealing money from other people, pretending to be other people, all sorts of complicated patterns it takes. And so you could have a team of human investigators that could look into it. And this was like looking for a needle in a haystack. You have millions of transactions, and it was just completely overwhelming for the team of twenty investigators we had looking at them.

The other sort of conventional model was that you had a super-duper computer that figured everything out on its own. And this probably would require a generalized artificial intelligence which does not exist now. We can debate whether it will exist in a hundred years or never. And that was sort of the pure computer solution that also was not going to work.

What turned out to be extremely powerful as a paradigm was a hybrid solution in which you had – you figured out the proper division of labor between the humans and the computers and have the computer basically flag somewhat suspicious things. You trained people to visualize transactions, and that turned out to be an extremely, extremely powerful technique.

And one of the – one of the companies that I helped start in 2004, a company called Palantir Technologies, which try to use the same sort of paradigm in the counterterrorism, national security space, where again we have sort of a pure human solution. We just have human analysts, and no one knows what anyone else is doing. This is perhaps characteristic of the CIA.

And then you have a pure computer solution where you collect all the data in the world, but you have no idea what you – what all you have, which is maybe characteristic of say the NSA within our system. And it turns out again that some hybrid approach is vastly more powerful.

I think the hybrid approach is very under-explored in general because we think of computers as substitutes for human beings. In reality, I think they are fundamentally complementary. Computers are good at very different things from what people are good. And the dominant narratives in our society on the computer age are either Luddite or sort of utopian in a negative way where we have to stop the computers from replacing us or the computers will replace us, and that's a good thing. Whereas, I think this sort of complementarity is probably the much greater reality. It's conceivable that you could build a



computer that would be smarter than a human being in every respect. But I think that's still somewhere between science fiction and science fiction fantasy.

KRISTOL: Yeah in Palantir. I know people in the military, have been in the military, and worked with the military who say it's really amazingly helpful in the fight against terrorism or in fights in general, other more – other things, other national security.

THIEL: Well, there certainly are large classes of – there are large classes of things one can surface. So it – I think did help connect some of the dots in the bin Laden, identifying bin Laden. Certainly a lot of the insider trading cases the SEC has brought have involved combining the dots in certain types of ways. So I think – I think we have – we have all these intuitions around what – what one could know. And I think one has to be sort of – if you are inclined to engage in insider trading, I would strongly discourage you from doing so.

KRISTOL: That's good advice and edifying advice and maybe true advice in this case. But say a word more about Palantir. I think people would be interested. How does it work? I mean it sort of maps these networks, is that basically right? Or it visualizes them somehow?

THIEL: Yes. There's always a front-end user piece where you are able to visualize certain networks. It turns out there's also a lot of backend technology of combining all these different databases. So one of the big backend challenges is that you have all these databases that basically do not connect in any way.

KRISTOL: So the NSA is overhearing phone calls from – or knowing that phone calls have been made between Person A and Person B, and then you have visual identification?

THIEL: And then you have credit card payments information.

KRISTOL: Person A has also met with Person C, and there are credit card payments from person B to Person F. And somehow what Palantir does is put that all together say, well, here's the terror network you should be worried about in Afghanistan.

THIEL: Yes. The backend technology would be to combine all these elements and then the front-end technology is effectively this visualization engine where, if you are trained as an analyst, you can learn to recognize certain suspicious patterns. And there's sort of ways that you work with the computer to really understand this quite effectively. But, yeah, I think it's – I think we're so fixated on this computers replacing people that we have not asked the question enough of how can people work better with computers.

KRISTOL: And it's just amazing to me that the counterterrorism – not amazing but it's surprising – is that the counterterrorism effort came out of this anti-credit card fraud effort.

THIEL: Well, certainly when we started Palantir in 2004, the thinking, we would not have thought that seven years later, the technology, they still wouldn't have caught bin Laden, that our technology would be used in that context. So it's – it is I think that there are – I think that are a lot of people in these agencies who mean quite well. I do think – I do think it's – it is surprising how hard it's been to get technological innovation inside these agencies to work, even though it would seem like there's enormous need to do so post 9/11.

KRISTOL: Is that a government problem of just governments are so bad at understanding and adopting technology or is it more of the people who work there problem?

THIEL: You know "why" questions are always really hard to answer. But I suspect that the bureaucratic incentives really cut against people making sustained effort for several years to build something that really works. There is an aspect – I think there is something quite toxic about the whole contractor subculture in DC where people have incentives to sort of bill by the hour, to have projects that take really long and are sort of overly complex so that nobody really has responsibility.

I'm sort of more on the libertarian side politically. I'm generally skeptical of government ability to do things. But even I was shocked that something like the Obamacare website couldn't work. You know this is not the Manhattan Project. And so there has been – I think there has been some decline in the government's ability to do these things. And I suspect – I suspect it has a lot to do with very – with bureaucratic incentives that are extremely – extremely misaligned.

### **III: Facebook (36:30 – 43:07)**

KRISTOL: We knew each other back when you were running PayPal, and so I probably don't think of you quite that most Americans probably do, which is Facebook.

You've done so much with PayPal, Palantir, LinkedIn, so many other companies, and also philanthropic activities. But I would be remiss if I didn't ask you about Facebook. How did it happen, how did it get going? What were the biggest surprises in the early years?

THIEL: Well, it – you know, people always ask was extremely hard to figure out how to invest in Facebook when I did it in 2000-2004. At the time, it felt like a relatively straightforward investment. They were already on 20 college campuses.

KRISTOL: So, 2004, so Zuckerberg has done –

THIEL: He launched in Harvard in February 04, he's in California summer of 04 looking for investors. And my friend, Reid Hoffman, who started LinkedIn, and I ran across Zuckerberg and basically decided to give him another half million or so dollars to scale it. It was generally a good sign when the only thing you needed money for was to buy more computers because there was such demand for the product.

It was people were probably too negative on these social networking companies at the time because there had been a few that had sort of come and gone, so there was a sense it was this faddish thing that would maybe get users for a year and then collapse. But if you actually looked at the intensity of usage that people had on Facebook, how much time people were spending on it, how much they were using it, and the sort of network effects it had, it seemed to be very powerful.

I did not – I did not think it would sort of – certainly I didn't think it was going to become quite as big as it has today. But we thought that – at the time, I thought it could be sort of a new media company that would effectively be an equivalent of online media for all the college newspapers in the U.S. And you basically have a media channel to reach all the colleges in this country. And that seemed – that seemed like quite a valuable –

KRISTOL: Originally, if I'm not mistaken, I seem to remember this from decades ago when I was at Harvard, there was, the Facebook, was either the real name or the kind of colloquial name right for pictures of all of us in the freshman book, physical book, so you would you know if you met someone, you could look them up.

THIEL: Yeah, actually, Facebook, the initial name for Facebook was The Facebook.com. So they even copied that. And it was basically –

KRISTOL: So it was just putting on – not just – but it was putting online in a certain way something that existed in hard copy in that respect?

THIEL: And it had a more dynamic aspect where you could update it, people could learn more about different people on it, they could talk to each other on it. It – but, you know, I think on the whole, Facebook is a very – you know I'm obviously a little bit biased here – but I think it is a very good service.

And one of the ways in which it worked quite differently from some of the earlier social networking efforts, so in the 1990s, people thought there would be this virtual reality on the Internet where you had some sort of alter ego in some chat room on AOL or something like that. And maybe you'd pretend to be a cat,

and I'd pretend to be a dog, and we'd figure out how we would relate. And it turned out that people were not really interested in fictional identities, they were interested in real identities.

And what I think was very powerful about Facebook was that it was – it was not – it's not the sort of radically alternate reality. It is actually about who people really were. And I think this was why it was so critical to start at a place like Harvard where people were comfortable of representing themselves in a fairly accurate way. Facebook's main competitor in the early years was a service that started in Los Angeles called MySpace. I often think there's something even about the names of these companies that's suggestive of the general direction.

So MySpace had sort of this Los Angeles narcissistic aspect of telling people about yourself, and it was sort of people pretending to be somewhat different from who they were. Sort of everyone in LA is sort of an actor. That kind of a – that kind of a feel. Facebook was fundamentally about learning about other people. And you could say that all these social networks require people to both write and to read. Unlike the real world, writing comes before reading. So you have to first write something about yourself, then you get to read about other people. But over time, reading dominates writing. And so Facebook was fundamentally about reading. MySpace was more about writing.

And so I think even implicit in the names was, was this arc of the product. But I think it is – I think this idea that real identities are more important than fictional identities is a positive attribute and it's, I think it's quite good that the one that was closest to that has emerged as the leading service.

KRISTOL: And was there a moment where you realized – or Zuckerberg realized – that you were going beyond, way beyond a replacement for all of the college hardcopy sort of student guides, really, yearbooks or whatever they were, Facebooks, to sort of a huge national/international –

THIEL: It was late 2006, early 2007 that it started being opened up to non-college students.

KRISTOL: So I guess it wasn't even open, right, at first?

THIEL: Yes. The first two years was just college students.

KRISTOL: Was that in retrospect, was that an important part of success that it didn't try to be for everyone right at the beginning somehow? It sort of seems to be unusual. Maybe it isn't unusual.

THIEL: Possibly. It's always you can never run these experiments twice. It's always hard to say. But I think – I think there was – I think it turned out to just, kept scaling and scaling. This is certainly one of the things that's always very difficult calibrate in these businesses is how far does the growth go, how long does it keep going.

But I think there is something about – sort of initially it was just English, then we sort of had multiple languages, multiple age groups. And it has gradually brought more and more people on board. And there are sort of – there were a lot of fairly creative product iterations that were developed. Sort of this newsfeed product where people basically have news that's sourced by their friends. And this actually turns out to be – you get sort of a surprisingly large number of quite interesting stories that you find yourself interested in reading. So it's actually quite a powerful news venue at this point.

#### **IV: An Innovation Slowdown? (43:07 – 1:04:28)**

KRISTOL: And some people say well this is all very nice, but ultimately isn't there something crazy about a society that's valuing this corporation so much more than all these businesses that make real things that, you know, medicines or food or whatever that you know people need to live. And is that just silly or is there –

THIEL: Well, it's – people – I think with all these – and Facebook is the iconic Silicon Valley company of the last decade, and it's probably worth about as much all the other businesses started in Silicon Valley combined since 2000. So it is sort of a way in which it gets a disproportionate focus as a result.

I do think there is sort of this modality where we find we either talk about a specific success and general success or specific failure and general failure. And so we would like to say Facebook is a specific success, it must mean some general success. And so Facebook is a great business, and therefore it will solve all the world's problems. And I think the modality I prefer to think of is, that there are specific successes but they may be symptomatic of general failure.

And so Facebook will not solve all the world's problems. But it may still be a great business. And that's not a critique of Facebook. We shouldn't turn Facebook into a scapegoat for the lack of innovation elsewhere. But the challenges that it is so – it's so anomalously unique and that there so few other companies like this being built in general. And that's sort of the – so I tend to think that the story of specific success that masks generalized failure is one we find very hard to tell. I, for example, have been – on our website, we have this tagline – “They promised us flying cars and all we got was 140 characters.” Which is –

KRISTOL: This on the website –

THIEL: Of our venture fund, Founders Fund. And it's a little bit of a –

KRISTOL: They promised us flying cars –

THIEL: And all we got was 140 characters. It was a little bit of a dig at Twitter. But it's again and in some sense Twitter is probably a great business. The thousand people who work at Twitter are going to have well-paying jobs. I suspect it will last for decades.

But I – but it's again, there's a sense that it's probably not enough to take our civilization to the next level. But again it's a mistake to blame Twitter for that. It's more a problem with not enough happening elsewhere.

I do think that if you were to sort of broaden the perspective on the last 40 or 50 years, we are living in a world where there has been significant innovation in information technology, computers – both hardware, software, Internet, mobile Internet. And much less in everything else. And there's sort of or again maybe different reasons one can cite for this. I tend to think that we live in a world where bits are quite unregulated, atoms are very heavily regulated. And so it's if they would –

KRISTOL: Explain that for a minute. That's a good phrase. With information technology, people just do what they –

THIEL: If you're Bill Gates starting Microsoft in 1975, you don't have people from government checking your code, checking how safe it is, how dangerous it is. If you're working on a – in a biotech company, you have sort of massive regulatory barriers all the way through.

KRISTOL: Or if you tried to build a new kind of –

THIEL: You're trying to build a rocket. And so you know the – And so even though there's always this sense that STEM, we need more STEMs for science technology, engineering, math. I suspect even STEM is a bit of an abstraction. And probably the only engineering fields that are doing really well are computer science and maybe, at this point, petroleum engineering. And most other areas of engineering have been bad career decisions the last 40 years.

When I was an undergraduate at Stanford in the 80s, probably the top engineering profession was electrical engineering and that was – it was not a great field to go into. You'd work in these very large companies and the semiconductor revolution kept going for a while but it was probably not that good a

career decision. And electrical engineering was still much better than say nuclear engineering, aerospace engineering where things like this which were – which were really catastrophic decisions for very talented people to go into. So even though rhetorically we always say that we want more science and engineering people, in practices, these have been extremely tough fields.

KRISTOL: I mean, you've made a version of this point, I think. But it really strikes me that we say we live in a time of unprecedented change, progress, dynamism. But it's true in some areas and, I think, especially though in some version of information technology, the intersection of the personal computer and the Internet. That I do think is we are doing things that 30, 40 years ago or 100 years ago certainly were just almost conceivable.

But in other areas, aren't you struck by how little change there is? We go to schools and sit in classrooms that are pretty much like what our parents and what our grandparents did. We live in houses that aren't that unlike our parents. We drive, commute into work in cars that look and on highways –

THIEL: A little bit better but not much.

KRISTOL: It's such a disproportionate lack of change there compared to the –

THIEL: Yeah, if you were to be even more critical, you could say that all these gadgets and devices, they dazzle us but they also distract us from the ways in which our larger surroundings are strangely old. So we run cell phones while we're riding in a 19th-century subway system in New York or if you like San Francisco, the housing stock looks like it's from the 50s and 60s, it's mostly quite decrepit and incredibly hard to change the sort things. So you have bits making progress, atoms are strangely very stuck.

KRISTOL: Is that because we've made the progress that can be made with atoms that it just sort of – that part of the Industrial Revolution ran out and now we're in some kind of –

THIEL: Well, this is always –

KRISTOL: – information revolution that's different?

THIEL: Yeah, this is always the – this is always the – this is always sort of a very fundamental question whether it's driven by, sort of the low-hanging fruit has been picked and now it's going to be much harder to make incremental progress, which is sort of the natural explanation, that we've hit some sort of natural limits –

KRISTOL: You go from horse and buggy to trains to airplanes but what's –

THIEL: But supersonic jets don't quite work, so you're stuck at airplanes, let's say. The alternate explanation which I'm more partial to is, that it is a cultural kind of thing. And that even though there probably are some areas where progress objectively is very hard, there are many areas where we could, we could still have progress if we really wanted to have it.

And so it's always this question – is it an external reality that's made it hard or is it something in the culture that's changed that makes us less ambitious, more risk-averse, you know more scared to try to do things? And I do think the regulatory double-standard where we have massive regulation in one place and very little in the other suggests that something like that might be going on.

You know, the – there sort of are, there all these examples where and one striking example is something like the SDI program in the 1980s, where I remember at the time, the debates were the conservatives argued this was a good thing because it would be a defensive technology. The liberals argued it was going to be a bad thing because it meant the U.S. would have a first-strike nuclear capability. But everybody assumed it was going to work. And 20, 20 years later, it sort of is implicitly assumed that it's never going to work. Even though I have things like the Iron Dome technology in Israel, which works remarkably well.

And it would seem that if you applied yourself you could have extended these sorts of technologies to things like intercontinental type missiles and things like that. It's harder, but it doesn't feel like the sort of thing that would be impossible.

So I do think that – I'm sort of very heavily on the cultural bias. I think it's always the part that people are more uncomfortable because it suggests that there was some sort of generational failure versus just external circumstances that are outside of people's control. So I think we're always too biased to go to the natural explanation because it's one that exonerates us from responsibility for the slowdown.

KRISTOL: And when you say cultural, you mean cultural/political/sociological?

THIEL: It's some combination, yeah. It's all these things, sort of, probably, are cause and effect.

KRISTOL: And you think there has been a slowdown? I mean, that there's apart from, I guess, Silicon Valley sort of stuff? We are not progressing as we once were, as people expected us to, or as we could be, I suppose.

THIEL: Well, the easy, the sort of macroeconomic manifestation of this is the relative stagnation in wages in the U.S. since the early 1970s, the sense in which a large majority of Americans believe that the next generation will be less well off than the current generation. So there is this incredible disconnect between what people believe to be true economically and the story that we're told about accelerating technological progress.

Culturally, the sort of failure of an imagination, a different future, is seen in – The simple example I always give is science fiction movies where if you look at all the science fiction films in the last quarter-century, they basically show technology that's dystopian, doesn't work, that kills people. So you can choose between the *Terminator* or the *Matrix* or *Avatar* or maybe – maybe if we don't get Obamacare, *Elysium*. And that's sort of what and does not portray a future that's sort of radically different and better. I think the *Star Trek* reread movies are sort of an exception, but that's still a throwback to the 60s. *The Jetsons* are a completely reactionary aesthetic at this point.

KRISTOL: It needn't be?

THIEL: I don't think it needs to be across the board. If you look at – a lot of these things sound very out there but if you look at things like nuclear technology, we could be building much safer, much cheaper reactors and I think it is probably a combination of political will and a belief that something like this could work that would enable it to work. And if you don't think it can work, it won't happen.

KRISTOL: It is striking, you're right that if you'd asked 50 or 60 years ago, people would have assumed, people did assume energy will be cheap and plentiful, it will be virtually like water, incidentally pay for it even.

THIEL: Yeah, it's too cheap to meter.

KRISTOL: Right, nuclear power is extremely cheap once you build the plant, presumably. You don't use up anything much.

THIEL: There still is, there's a sense in which it still – if you sort of think about the energy density of something, probably the more advanced technologies and ones that produce more energy with less of a unit of volume or something like that, and so there's a sense in which something like nuclear power still seems like the energy of the future versus, say, massively distributed windmills or solar panels are less energy intensive than say oil or natural gas. And in that sense, seem somewhat retrograde.

KRISTOL: Yeah. I mean it is striking as you say how much people seem to accept almost the slowdown in various ways.

We're having this discussion while Israel is fighting its war Gaza, Iron Dome is working. We're living in a dangerous world, maybe nuclear proliferation is coming. But there's no demand at all really from any quarter in the U.S. Now that I think about it, why don't we build some version of Iron Dome? Are we confident for the next 50 years no one's going to have missiles that could strike the U.S. or no one who does have those missiles might choose to use them, analogous to Hamas striking Israel? Wouldn't it be kind of a prudent thing to spend a few tens of billions of dollars on our version of Iron Dome? But you could multiply examples. I mean, this is just one.

But you're right. Nuclear power plants, we're sitting here with gas prices at what, almost \$4 a gallon. Oil price is what about a hundred bucks. And no one's sort of that alarmed about that, even though what were they just five, six, seven, years ago, they were half that, right? I mean, it's presumably not helping our economy to have everyone to have this new level apparently of very high energy prices, yet people kind of have a passivity or fatalism about so many of these issues – are we vulnerable to missiles, we're going to have to pay more to drive, you know, we can't build things the way we used to, go into space.

THIEL: I often think that if there's – I don't want to be too declinist about this but if you have sort of this period of generalized stagnation, you could sort of accept it, you can deny it, or you can fight it. And the modalities that seem to dominate in our culture are acceptance and denial.

And probably the Republicans are more on the denial side, maybe a little bit less than before. The Democrats tend to be on the acceptance side. And what probably is really needed is to fight the stagnation or to fight the decline. Acceptance and denial, even though they're opposites in some ways, they're actually very similar in that both of them tell you at the core that there's nothing to worry about, there's nothing you can do, it doesn't actually matter.

KRISTOL: That's very interesting. So acceptance would be where we live in an era of limits, we can't control things abroad. We can't –

THIEL: We might as well have a clean environment. You might as well. But you shouldn't expect too much, you should just sort of lower your expectations. And then denial is something like, "we're still in an era of growth and it's all happening on its own," and it's not actually, it's not a political or cultural question at all, it's just automatic.

KRISTOL: That's sort of the Republican view I guess, especially if you remove one or two bad government policies, I suppose.

THIEL: Yes, so it's always very optimistic that you can change it with just one or two policies. And I think that I think was, maybe that was the – that was probably the Bush era, Bush 43 era Republican view.

I think it's a little bit less so but it's always tricky, how do you get out of denial without going straight to acceptance, which seems to be the common modality.

So it's – I describe this era of technological stagnation, it's not meant to be demotivating. It's meant to say: there's a problem – and we could be doing a lot better on these things.

KRISTOL: I mean, it is interesting now that you sort of mention it this way. We have these fantastic breakthroughs obviously in Silicon Valley from the Internet, etc. But people don't say, "We've done it in this area, we've gone from landlines to big bulky cell phones to iPhones in what 25 years? So why can we do the analogous thing in space exploration, defending ourselves, energy production?"

THIEL: Medicine.

KRISTOL: Transportation, medicine. I mean, you could, one can imagine a culture that says that, and the culture might be wrong to say that because maybe these other areas aren't susceptible to that kind of growth. But we don't even think that way. I'd say, we think this is great and this is nice but it's sort of

unique and we just chug along the way we're chugging along and hoping that we can get one place to another five minutes faster ten years from now.

THIEL: I mean, there's a great deal of hysteresis. So when things haven't work for a while, people do give up on areas. So you know, Nixon declares war on cancer in 1970, says he will defeat it by the Bicentennial in 1976. 44 years later, by definition we're 44 years closer to the goal but people don't – people are less motivated today than they were in the 1970s.

And it would be inconceivable for someone like Obama to get on television and say we're going to declare war on Alzheimer's even though one-third of Americans at age 85 are suffering from some form of dementia. And so it would seem like the sort of thing that one should try to do something on. But it's – it just does not resonate.

KRISTOL: And again I guess it comes back to the question of does it not resonate because we didn't lick cancer in six years or even in 46 years and we – other claims, hopes have been expressed along these lines with respect to other diseases and other medicines. I mean, so I guess the question is are people right to be much more sober about the future or are they now accepting too much and/or denying too much and not doing what they could be doing in some of these areas?

THIEL: Yeah, it's always over-determined, it's some combination of all of the above. But for my liking, people are too complacent and I do think that it is – there is this incredible self-fulfilling aspect. You know, if you think you can do something, thinking you can do something is a necessary precondition for being able to do it. It may not be sufficient but it surely is necessary.

It was [Andrew] Wiles, the Princeton mathematician, solved Fermat's last theorem, worked on it by himself for eight years, solved it after 358 years of people trying. And maybe it was impossible, maybe it was a fool's errand to spend time on that. But if you didn't think that you could do it, you were never going to be the person to do it.

KRISTOL: And what could turn this around? I mean, you're right, you have this funny combination now in the general culture, a certain kind of complacency, but it's not a happy complacency, really. It's sort of unhappy, a little sullen, a sense that we can't do much so we should accept it. But we're not satisfied with it, so we lash out occasionally at our political leaders. But –

THIEL: Well, it's – I do think if there's a silver lining to the crisis of 2008 and post-2008, it is at least a sense that sort of the automatic-track things no longer work as well. And so there were for a number of decades, there were all these reasonably well-paying jobs people could get that would involve taking little risk, would be sort of incremental and you could become a lawyer, or a banker, or a consultant.

And I think there is some sense that that is no longer working. I think Silicon Valley, even though it's in some ways sort of an exception to this, is much more charismatic. And so I'd be very bullish on Silicon Valley and relatively bearish on New York City, as sort of a tale of two cities where New York was the tracked thing to do in an overly financialized world. And I think at this point, if you have a talented young person in the U.S., Silicon Valley is probably the most charismatic place for that now.

You know, the hope is that the information technology revolution can somehow be expanded more to the world of atoms than it has. But I do think there's some sense that these set ways of doing things are no longer working as well. So there's that negative sense. It often doesn't quite translate into positive yet where people don't know what to do instead.

KRISTOL: Would you need a political jolt do you think, or could it be done by private citizens in terms of founding businesses that do the equivalent of Facebook or PayPal in medicine and space exploration and other such things?

THIEL: It varies in all these different areas. I mean, certainly there was some deregulation of the space industry under Bush 43, and it's probably enabled a private company like SpaceX to gain traction. It's



hard to see how medicine can work without a less onerous FDA. So I do think there are parts where you're incredibly embedded in this risk-averse political system.

There are probably some other technologies like say Uber or AirBnB, the car service, the short-term rental company, where in a way you can – things can grow very quickly and the technology can sort of outpace the politics. And so you're often in this sort of gray legal zone. But then at the end of the day, people will not want to shut it down because there are tens of thousands of people who are making a living on this. So I think if you can get something to grow quickly enough, you may not need to, the politics may sort of get dragged along. But it's things where you need political cooperation *ex ante* that are quite hard to change.

#### **V: The Need for Growth (1:04:28 – 1:13:57)**

KRISTOL: And do you think America can – I guess, the question is could either American liberalism or American conservatism, the Democrat Party or the Republican Party, really embrace what, I think you would like to see, which is a real sense of recommitment to progress and to make progress, right?

I mean, I've heard you talk before about this respect, people – everyone is now accepting of or sometimes unhappy about but not really willing to do much about globalization. But globalization really isn't the same as real technological breakthroughs and technological progress.

THIEL: Well, they're extremely – globalization is about some sort of convergence theory of history in which the developing and developed nations converge. And sort of a lot of the rhetoric around globalization is implicitly anti-technological. And so when we split the world into developed and developing nations, this is a pro-globalization dichotomy but it's also an anti-technology dichotomy because were implicitly saying that the developed world is that part of the world where nothing new is going to happen, where nothing is going to change, where things are basically stuck. And so I think the question that I would like to see us ask more is how can we develop the developed world or something – something like that.

It's – you know, I'm not involved in any sort of political, I haven't run for public office or I don't intend run for public office. And so I don't know exactly how you convey this rhetorically. I do worry that a sort of pro-big progress political message resonates very strangely. So when Gingrich says we should go back to the moon, it's like well, you're really lost in space or something – something like that. And so I don't know if you pushed for building hundreds of new nuclear power plants whether that would – how well that sort of thing would go over. But I do think that the sort of pessimism that is endemic to places like Japan or Western Europe is somewhat un-American. And so there is – there is – and so it is really critical, there still is always an opening to tell a more optimistic story and that we could be doing a lot better than we are.

KRISTOL: But it seem a lot of the talk about optimism these days is talk about optimism, rather than actually acting in an optimistic way, right? Republicans say our best days are not behind us.

THIEL: You know it always has a feeling of protesting too much or something like that. And so – I do think – I do think that a lot of these things will happen in very specific contexts.

I think if we had less regulation, a lot of these things could happen. It's possible – it's possible there will be some global – maybe the FDA will have less of a throttle on global innovation in biotechnology. And there are sort of ways one can imagine that things will change in the decades ahead. I do think – I do think that the most – there is sort of a sense in which the tracked narratives feel exhausted. And that's why I think there is an opening today in a way in which there was not say in 2007 or 2006.

KRISTOL: I'm just thinking. I guess the last person to really run for office with a big vision of change was Reagan. I mean it was partly a reaction against Carter, obviously, and a reaction against the failures of his own party under Nixon and Ford. But there's also sense of, I mean, Reagan believed this much more than his advisors and most conservatives, that you could actually win the Cold War with the right

combination of defense buildup and moral challenge to the Soviet Union. And he believed, again much more than many of his advisers, that with the right mix of tax cuts and deregulation, you could really get the economy going again. And in both those, he was at least over the short-medium term, very much vindicated.

And if you think about it, I guess no one really is the kind of proposals, the tweaks, whether it's reform conservatism on the right or Clinton's kind of form of new Democrat reforms. Or even Obamacare, allegedly such a big program and one that someone like me doesn't like at all because of how big it is and how much it impedes our liberties and stuff. Still, at the end of the day, is it really transforming healthcare in the United States? No, it's just making it more bureaucratic and so forth. So the lack of ambition of major politicians is pretty, and political parties, is pretty striking.

THIEL: The rhetorical version of this that I always think is striking is when were the last political speeches you can remember where people in very concrete terms portrayed a future that looks very different from the present? So you can imagine Martin Luther King, you know, "I have a dream of a nation no longer divided." And so it's radically different from the present, a much better, a very different looking future. The last speech like this that I can really identify would be Reagan at Berlin – "Mr. Gorbachev, tear down that wall" – where it's very concrete terms, a future that looks radically different and much better than the present. And somehow that works much less well.

You know, during the Obama campaign in 2008, there was a subtle change in the way the slogan worked where you started with the slogan, "hope and change." And in the course of the campaign, that slogan changed, to "the change we need." And so in other words, a change from maximal change to the absolute minimum amount of change that's absolutely necessary, which is quite a striking reversal because it turned out that change poll tested very badly; people were scared of change, they thought that change meant change for the worse, not for the better. And I think that is the sort of political malaise that you're up against whether you're a Democratic or Republican politician.

KRISTOL: Yeah, maybe in retrospect, Obama for all the talk about hope and change, and how new it all was and exciting, it was kind of an echo, or a shadow, of *real* hopes for change. You know you think about what really was he going to change in America, compared to –

THIEL: Well, it's incredibly abstract and so the abstractions enable people to project onto it whatever they want to. But it suggest that there's not going to be sort of any specific leadership in one direction or another. And I think it's – but again I think this is not a problem limited to Obama or Clinton or the Democrats. I think it's really these abstractions are sort of very much across the board.

KRISTOL: I mean, Mitt Romney was going to get entrepreneurship going again in America or something like that but that's you know. Again there wasn't –

THIEL: I'm skeptical as you know of the word *entrepreneur*, so, yes.

KRISTOL: Right, right. I guess, again it comes back to the question of is this a recognition of reality we're now living in. There's no Cold War to win, it's not so easy to just deregulate oil and cut taxes and have economic growth for six, seven years as after Reagan. Or is it a failure of imagination, a failure of will somehow, as you say a kind of cultural change somehow?

I guess the other question is do you need these external events to spur a nation or culture on to sort of embracing these big changes? The space program came out of, to some degree, the Cold War.

THIEL: Yes. So I – you know I don't quite know what it would change, what it would require, to change the sort of malaise. But I do think that a world in which little changes and there's little progress represents a radical departure from the past. And it is something we should fight really hard in all ways that we possibly can.

You know, I sort of wonder whether on some level, the U.S. constitutional system can even work without some sort of growth. Because I think the way – the way things fundamentally work is you have people around the table in the Congress, the White House, and you pass bills that gives some more. A little bit for you, a little bit for me, a little bit for everybody. If you're a difficult person who doesn't get along with people, there's nothing for you. And that sort of a political mechanism works quite well, so long as the pie is growing.

If the pie is not growing, there's much less need to cooperate, to craft new legislation. And is actually not clear to me how well – you know, how well our constitutional system even works. You know, we've had in the Western world 200 years of growth, 250 years of growth, since the late 18th century. And if you look at the 1930s, which was probably the one-decade where there was a real shock to growth, it put enormous strain on all the sort of constitutional democratic, republican types of systems. And I do think that's an enormous challenge in our time. So I think we should not be complacent about this at all.

## **VI: The Higher Education Bubble (1:13:57 – 1:36:39)**

KRISTOL: Peter, you've been involved in American higher education for a long time and are critical of it, actually especially in recent years. Isn't it the best in the world, what's wrong?

THIEL: Well, it – I think sort of many of these challenges that we discussed also apply in the higher education context where, you know, it's probably if you define technology as doing more with less, education is perhaps the most anti-technological aspect of our society today where you're getting the same at a higher and higher price. You know, the real costs of higher education since 1980 have gone up about 400 percent, that's after inflation. And it's not clear the quality has gone up at all. And so I think –

KRISTOL: It's hard to even imagine how that is. I mean the classrooms are the same, the teachers are the same, the facilities are a little bit better. 400 percent, it really is bizarre when you think about it.

THIEL: Well, it's on some level, on some level, the universities have found that they can just charge more every year. And I think – and so I think the question is maybe why has there not been more resistance to these price hikes. And I think it again in part goes to this failure of an imagination of an alternate future. And so talented people should all go to the same universities, learn the same things, pursue the same types of careers.

And so I think we have – we have – if we had an Internet bubble or a housing bubble, we certainly have an education bubble today. And it has – it is, you know, bubbles are characterized by things costing more than they're worth, they're characterized by sort of intense psychosocial dynamics. So it's very hard for people to suggest that you should not go to the best college you can get into, because people don't know what else to do. So again it's sort of a failure of imagination of an alternate future.

And it's also bubbles are also characterized by abstractions away from reality. And so I think the word *education* itself is this incredible abstract filler. And it's worth drilling down a lot more on what is going on. And that's the sort of thing you're generally not allowed to do. So what is it specifically that you're learning; so, engineering, is it some rigorous humanities course, or is it just education in the abstract?

And, you know, I've often suggested you could think of this in economic terms. You can think of, is education an investment decision where it's basically something you invest to get a better paying job; is it a consumption decision where it's sort of a four-year party?

And maybe it's sort of a combination of a bad investment and bad consumption decision where basically people think they are investing by consuming, which was characteristic of the housing bubble, where you bought an especially large house with a swimming pool and you patted yourself on the back for being an incredibly frugal investor. And so there's sort of an aspect of that.

But I've come to think that even more than investment or consumption, it's perhaps better to think of education as understood as an insurance policy where it's probably not worth as much as people are paying for it, but they're scared of falling through the cracks in our society. And so as the cracks get bigger, we pay more and more for insurance against it. That's the way it's advertised.

And then I think the reality is that it's the exact opposite of an insurance policy; it is actually sort of this crazy zero-sum tournament in which what really matters is getting into the best schools and then a diploma from a third-tier university is really a dunce hat in disguise. And so there is – so I think at its core, it's perhaps a zero-sum tournament masquerading as general insurance. And that's incredibly dissonant.

KRISTOL: And can it be changed? I mean as long as I've been – I came here to work in the education department, we thought higher education was ripe for change. And it doesn't look very different now than it did 25, 30 years ago.

THIEL: You know the tone, historically, I think the tone has been set by the top universities. They have these enormously rich endowments and they are incredibly resistant to influence from the outside. And so I do think – I do think it's the kind of thing that's very hard to reform from without.

It is nevertheless, I think, heading towards a crisis of sorts where it simply no longer works for the vast majority of middle-class students who are amassing enormous amounts of debt going to college. And so there is going to be enormous pressure. It's hard to say exactly what the timing on this is, but I think some of the online alternatives are going to get more traction as these financial pressures start to mount.

One of my friends has characterized the university system as the atheist church, which is sort of a successor to the Catholic Church, it's sort of universal. And that the university system in 2014, it's like the Catholic Church circa 1514. There's less diversity, so you have the Dominicans and Franciscans and all these different orders, whereas the diversity between say the Harvard and Stanford political science department is considerably less. But it is sort you have this priestly class of professors that doesn't do very much work, people are buying indulgences in the form of amassing enormous debt for the sort of the secular salvation that a diploma represents.

And what I think is very similar to the 16th century is that the Reformation will come largely from outside. It will – and then you at some point, maybe there will be some internal need to adapt. But I think the first move will have to come from outside because you have sort of systems that are so far decoupled from what actually makes sense, and the people are so bought into a system that just does not work, that I think you will see enormous resistance from the faculty.

KRISTOL: I think it seems to me it's a combination of sort of bureaucratic sloth, I guess, and resistance to change, on the one hand, and then the political correctness, on the other. And I guess they go together more than perhaps – some people focus on political correctness, the more ideological critics of higher education; the financial critics focus on the self-perpetuating tenure system and endless growth, apparently, of bureaucracy and cost. But I suspect there's some relationship of those two.

THIEL: Well, there is an incredible conformity and there's – and there is – and sort of the questions of how are you training people to think in different ways have really gotten lost sight of. I think it is striking how little of a focus there is on teaching in general.

And there is sort of this subtle point where something goes from a not-great system into an all-out racket where does it – how much sense does it make for professors to really invest in their graduate students and Ph.D. programs when there's a sense that none of these people will get jobs anymore, anyway? And so I think you are sort of in this zone where it has in many ways become this incredible racket. And it is hard to really know what people inside it think.

KRISTOL: And I think just objectively people say it's the greatest, it's the best system ever. But just as an obvious matter, people are not as well educated today as they were, the elites at least, 70 or 80 years

ago. People know fewer languages, they memorize less poetry, they're less familiar with history and just literature. I mean just in very obvious ways, someone graduating certainly from European universities, but maybe from American universities as well, it just seems to me had a better education. Leaving entirely aside politics today, which is just sort of amazing.

You think someone should be able – and that strikes me as also ripe for challenge. If someone set themselves up and said we're going to really – this is K-12, obviously, we're going to provide a real education. There's no reason in 2014 should be less well-educated than a young person was in 1914. But it's evidently the case in many ways.

THIEL: Yes, well, there is sort of an egalitarian assumption embedded in education where it's assumed that everyone is more or less the same. And therefore if you look at how well do people do who graduate from Harvard versus people who just have a high school diploma and let's say they make twice as much money per year if they graduated from Harvard as with a high school diploma. It's assumed that this is *prima facie* evidence of how great the Harvard education is. When I think the reality is much more that it's super-selective selection effect. There's selection, there's signaling, relatively little sort of value-added learning.

But because we have this egalitarian mindset, it's sort of hard to make the argument that it is just this – the selection, rather than value-added learning. The obvious way to illustrate this would be if you said to the top universities in the U.S. were doing as good a job as they claim, the most natural thing for them to do would be to increase enrollment. So if you say you have 1,600 people this year going to Harvard and we're offering a fantastic education that's making them much better than they otherwise would have been, could you sort of have some structured growth plan where you increased that number to maybe 3,000 over 20 years? Certainly the population of the country is a lot larger, it's attracting people from all over the world. And so if you're offering such a great education, what sort of a product is it that where you wouldn't increase the number of people who use it?

I mean, I think the only product I can think of where you would limit access as much would be a nightclub, which is sort of again a zero-sum product that's based on exclusion. And I think that if you went to any of these top universities and you proposed doubling the enrollment, you would get a uniform opposition from the alumni, from the current students, from the faculty, because it would – they would rightly perceive that it would make it less prestigious, even though that sort of goes very much against this egalitarian ethos that everyone's the same.

KRISTOL: Yeah, so that's it – that's a good contrarian point-of-view that you're taking there on higher education.

THIEL: Well, I think the rhetoric around education is always that it's a positive sum-game because there is his nave intuition that, you know, knowledge, if I know something and I teach it to you, we both will know it. And so there's something about knowledge that's fundamentally, that's incredibly positive-sum aspect. And I think it masks the very zero-sum aspect of education.

I went to law school, and if you look at the law schools, there's this brutal ranking on the *U.S. News & World Report* scale where the top three, I think, are still very good. So if you go to Harvard, Stanford, or Yale, that's really good. Then, I think, there's four after that that are pretty good, and then there's sort of the numbers eight to 14, where maybe if you're in the top half of the class. And then probably numbers 15 to 200, it's very unclear whether it's a positive value for anybody who goes or the bottom 90 percent of those classes.

KRISTOL: Yeah, it's kind of amazing how fast the law school situation seems to have changed in five or ten years, which does make one wonder whether the apparent stability of higher education in general – or I'd say education in general, or I'd say even more generally, whole chunks of the culture and of our institutions that seem so impervious to change. Government would be another one.

You do wonder whether they can chug along for longer than one thinks. But then when they really, when things really hit, when things begin to change, it could all change faster than one thinks.

THIEL: So I think when I've looked at this, I think, in the 1980s and 1990s, one saw rapidly escalating costs in education but also increasing inequality in our society. And so it was at least correlated. It was always worth going to the top college because you'd make more money and it would sort of seemingly make up for it.

Post-2000, even though there still is a vast gulf between high school graduates and college graduates, it stopped widening. The costs have kept going up. And so the relative value of a college education has actually been going down since about 2000.

If you say were to measure the value of a college education by how many years does it take you to pay off your debt, the number of years was actually going down in the 80s and 90s because the premium was going up even faster than the costs were escalating.

Post-2000, it's taking longer and longer to pay off the debt, so actually the relative premium has been in decline for 14 years now. And, I think, again, 2008 was a bit of a watershed moment where all the sudden, there were sort of a lot fewer of this tracked positions available when kids graduate from college and moved back in with their parents, that was not part of the deal the parents had implicitly signed.

KRISTOL: It sounds like it's a sector of American life ripe for new founders to come along and do things as you did in tech and in Silicon Valley. But is it possible? I mean could one –

THIEL: Well, it's certainly it's incredibly distorted. It's one of the things that makes the education bubble different from say the housing or the tech bubble of the last decades is that it is actually very hard to measure what the quality of education is. And so when people say things like you'll figure it out in 20 years, there things you will learn that are intangible that will help you 20 years in the future. A somewhat cynical cut on that might be that, well this is the sort of thing you say if you're running a scam where you want to have a really long shelf life to it so people won't notice that they've been defrauded for a long time.

But there is something about the immeasurability of education that's made the education bubble quite durable, but on the other hand, it probably also means that it's gotten bigger and bigger in a way that's extremely distorted.

But I think, yeah, I think we are at a point where it's going to start changing. And you know, our backgrounds are in these elite universities – you went to Harvard, I went to Stanford. I think those are the ones that will be the last to change, and so we may be underestimating how much change is going to be happening in the next five, ten years in this very broad swath of colleges where the cost-benefit calculation is not working in any sense of the word anymore.

KRISTOL: Yeah, no, I very much agree with that. But I do want to also for elite students, if you think of the product as education as opposed to going to college, whether one won't over the next ten, 20, 30, 40 years, people will get educated in very different ways, much less will focus on what actually happens in these accredited institutions of higher education or maybe even K-12. Or maybe the institutions will have to change, therefore a lot in terms of –

THIEL: Well, it is a question whether the – there's a question how good are the elite institutions even for the people who go there? So one of my friends started at Yale in 2001, the dean welcomed him by – welcomed the class by saying, "Congratulations. You're set for life, you got into Yale." And this is, a 17 year old. This seems slightly off. Like maybe it's true as long as you absolutely never believe it to be true. But if you actually were to believe that, it's probably quite toxic. And so I think that –

KRISTOL: It attracts people into probably safe trajectories, which may not turn out so great as you said. I'm not so sure if it's even true at that level anymore.

THIEL: Yeah, I suspect that there's – that the K through 12 tracking to the elite universities sets people up in ways when things don't quite work out automatically for them afterwards, they're not that resilient, they're not that able to recover.

There is an amazing degree to which people's ambitions get beaten out of them in these top universities. If I look at what people thought my senior year in high school. It was sort of like were very ambitious, had all these ideas what they were going to do. And if you looked at the same people at sort of college plus five years, sort of nine years later, let's say, it was amazing how much things had been ratcheted down.

So I do think there's something problematic where all the talented people go to these schools, they're sort of evaluated on the same terms and at the end, a lot of ambitions are beaten out of them. Probably the one that I think is even worse for people than Harvard, in this respect, might be Caltech where you have these brilliant math/physics people and after four years where you're in the middle of your class, you're convinced that the most you can do with your life is become a line engineer at Lockheed and maybe you can go into mid-level management 20 years later.

And so that is – that's sort of is characteristic of what I think has happened. And what I think we need to somehow find a way back to is this idea that there's not just a single track, that there are very different things you can do. The question – what truth do you know that nobody agrees with you on; the sort of career version of this, is what are you really good at that other people aren't that good at, or something like that? And that – and that somehow gets discouraged by this incredible homogenization.

KRISTOL: And big ambitions get discouraged, I think. Don't you think? And it's true of all of us, I suppose we decide we can make it in a certain line and do things a little – move ahead, step-by-step, with the kind of – with the ambition to be a founder. To come back to what we talking about earlier. That seems to be knocked out of the whole – both the institutions and the mindset that permeates the institutions. It's almost a denial that that ambition is reasonable or even possible.

THIEL: Well, there's a sense that there are all these people who are ahead of you. So there's always this sense there's so many people who are much better than you or just as good as you, so who are you to think that you can do anything different? And obviously when everybody starts to think that, nobody does anything. In fact, it becomes self-fulfilling once again and no one does anything different.

KRISTOL: Yeah, well, you're a good example of doing something different. So I thank you for that, actually, because I think it's important.

And I think the question really is, though, it's amazing how many people think the question really is though, it's amazing how many people think you and Mark Zuckerberg and everyone else who've done these different things but it's only doable in that one area of the country, Silicon Valley, that one area of business and of enterprise, which is sort of information technology.

It's sort of hard to see why that would be the case of course. But politics, culture as a whole, other parts of business – it is striking how the weird combination of – maybe it's not weird – of passivity and a certain kind of complacency and passivity and sullenness all at once. It's not entirely a healthy picture, I think.

THIEL: Well, I think that – I think people – how should I put this – people, it is always, coming back to one of the points you made earlier, it is always very important to think through where is there a freedom of action that's possible and what spheres is there sort of a lot less freedom of action.

And probably the academic setting, you know, the thing it gears the most talented students towards is academia itself. And that is probably a place where the sphere of action has gone down as much as anywhere in the last 40 or 50 years. You know, sort of this idea that all Rhodes Scholars had a great future in their past. And it's because they're encouraged to then do these super-conventional things, where it turns out a lot of other people are doing basically the same things. And you end up again with this question – why does it matter for you do it if 20 other people are doing it already?

And I do think it's again and on a somewhat more optimistic note, it is not the case that everything is so exhausted and that there are – this is, again, sort of this cultural, natural question – is the set of possibilities really this narrow where it's there only are these tracked things with a few positions at the end of these tracks that are any good. Or are there really a lot of unexplored paths and, you know, hidden paths, that are much more promising that people should explore? And I think the political correctness tells us that everything that's conventionally known is true, there's nothing outside that that works. And so that's how I think it probably intersects with this tracking in a very deep way.

KRISTOL: Well, I hope people watching are encouraged to try non-conventional things and have gotten some guidance from you. I think they really have on how to even how to think about that and how to go about exploring hidden paths or new paths and head in many different ways.

So I've really enjoyed this conversation. Thank you so much, Peter, for joining me today and thank you for joining us on CONVERSATIONS.

THIEL: Thank you.

[END]