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A Conversation with Fred Wilson

Speakers:

Fred Wilson, Managing Partner, Union Square Ventures

Interviewer:

David Kirkpatrick, Chief Technomist, Techonomy

(Transcription by [RA Fisher Ink](#))

David Kirkpatrick: Let me quickly introduce Fred. Fred is the most eminent venture capitalist in New York and I was thinking about Fred's work and his role in the industry. In a way, you're the most successful VC of the second generation of the Internet. You funded Twitter and Tumbler, and a bunch of others, Etsy, MeetUp, and Kickstarter—so many great companies. It's really interesting because you're often sort of grouped in with, from a slightly earlier generation, John Doerr and—what's his name, from Benchmark. Well, Gurley of course is a little closer to your generation.

Fred Wilson: He's younger than me, actually.

Kirkpatrick: You've served on boards with him, I think, haven't you? But anyway, the fact is that you're one of the only ones – maybe Gurley would fall in this category too, and that's why we had him talking about it in November actually, who has never really participated in the founding of one of the giant colossi that is now sort of looming over society with such sort of overbearingness. So maybe we should start with—since I already mentioned it. That did come an awful lot yesterday. We even had somebody from Facebook here and from my perspective as a tech journalist, the role of Facebook, Google, Amazon in particular; but also Apple and Microsoft is increasingly the environmental question that doesn't affect just the industry and its opportunities but society as a whole. I'd be curious to hear your perspective on how you think about those companies in our lives and in our societies.

Wilson: I think that what happened to Microsoft back in the late '90s will happen to them, I just don't know when.

Kirkpatrick: Do you mean tending towards at least short-term irrelevance?

Wilson: No, they are optimizing around an attention-driven business model. Somebody will create a new business model that is not attention-driven the way that the attention-driven business model disrupted the enterprise software business model and they won't be able to react to it quickly enough and they will get disrupted.

Kirkpatrick: Do you mean like a social network that you have to pay for or something like that?

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Wilson: No, I think probably the most disruptive business model is the token model that we're seeing emerge in the blockchain, which is really a native business model for the open source, creative commons type of—you think of something like Wikipedia or something like Linux. We're talking about systems that are decentralized, open and community-powered. We never had a business model that could power those things so they've been free. Linux is free, Wikipedia is free. They run a little campaign once a year like NPR and we give them all a bunch of money, but it's not really a business model.

The idea of a token is that we all use those tokens to participate in those systems and the people who create the value in the systems get rewarded with the tokens. People who participate in the systems spend the tokens and the tokens increase in value in the way that a stock price would increase in value as the impacts of the system grow and it's a very native, elegant business model for these community powered systems. I think that it's very disruptive to the attention based business model, and I think that there are going to be very, very large companies that will be built from the ground up based on those business models.

Kirkpatrick: They wouldn't be "social networks" most likely, right?

Wilson: I don't know what they'll be, they could be—

Kirkpatrick: But why is it so disruptive to the attention based business model? I could see those things succeeding, but why would that disrupt Facebook's ability to monetize attention with advertising on a global scale?

Wilson: Because people walked out of Facebook because they realized that what they're doing is they're basically giving Facebook all their data so Facebook can run advertising against them. A lot of people are already opting out of Facebook.

Kirkpatrick: He's always been a lot more negative about Facebook than me, by the way.

Wilson: We had a gathering of the CEOs of all of our portfolio companies. We do it once a year. We had it last week. At the beginning of the day we go around a room just like this and people talk about the thing that has changed the most for them personally as they run their companies in the past year. The thing that came out, surprisingly, was that people are not using social media anymore. The CEOs of these companies are not using social media anymore other than to promote themselves and their companies. They've unfollowed everybody and they're just using it as a broadcast mechanism. They're not consuming anymore.

I think a lot of us feel that way. I mean, the minute that Trump got elected, I muted that word on Twitter. I don't follow Trump, I don't listen to anything about him. I have opted out of that.

Kirkpatrick: He told me this before we started this morning. I was amazed, considering how diverting at least it was to read the paper this morning.

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Wilson: It's counterproductive. I watch my wife, she spends two or three hours a day obsessing about Donald Trump.

Kirkpatrick: I was almost late this morning because I had to read about half an hour's worth of "New York Times" stories.

Wilson: No, you don't and you shouldn't. You shouldn't. It's a waste of your time.

Kirkpatrick: I wanted to know Fred, I'm sorry. But, okay, I'm sorry, I sort of interrupted you. The point about Trump was what again?

[LAUGHTER]

That you stopped—you muted him, you muted him on Twitter—

Wilson: Trump is a troll. Trump is a troll, and what we must do to trolls is we must ignore trolls. They get their power from us paying attention to them. We have to just stop paying attention to him.

The democracy and the political system will take care of him in due course. I don't know when that will happen but he will be taken care of and we can move on and do more important things, like fix the fucking health care system.

Kirkpatrick: Right.

Wilson: That would be very productive.

Kirkpatrick: It is important clearly.

[APPLAUSE]

Absolutely. I mean, look at that chart. I think we'll probably circle back around to the Facebook threats or non-threats. I would like you to talk a little more—It was really stunning to me, considering you don't listen to any news about Trump, but yet you are so confident that our democracy is still fully robust enough to handle whatever threats get thrown its way.

Wilson: Well, look at the facts, okay? The immigration bans, both of them have been thrown out by the courts. Obamacare reform failed to pass the House the first time, barely passed the House the second time, doesn't look like it will pass the Senate. His entire legislative agenda is basically being repudiated by our political system and I just don't think he's going to be very effective. We have a democracy that works. We have a court system that works. Even in Washington that is controlled by one party, he can't get his agenda through, right?

And the thing that's the most beautiful thing about our political system is that politicians optimize for self-preservation. That's the one thing that they optimize for. So when somebody becomes

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toxic, they run for the hills. They will ultimately rid him of our political system when he becomes too toxic. It's going to happen.

Kirkpatrick: I love how succinct you are. It's great for a fast-moving interview.

[LAUGHTER]

But let's go to another company. You've sort of dispensed with Facebook and Google, but what about Amazon? It's a different kind of company. It's not attention based in quite the same way. Its ambitions are perhaps even more vast, its successes are shockingly great in so many ways. I mean, I don't know how many have—you have, I know, Google Home as well as Alexa. That has been an astonishing success from many perspectives.

Wilson: I actually think that of the big four, Amazon might be the most disruption-protected. I don't know if that's the right word but I guess you understand what I mean.

Kirkpatrick: Yes.

Wilson: I think that they built a really diverse set of businesses. As a result, I think that they—it's like a stool with ten legs on it. Even if two or three of them get knocked out, they're still going to have great business, and Amazon Web Services, in particular, is just a really amazing business. Most of our portfolio companies run on it. So I agree with you on that.

Kirkpatrick: So in other words, does it affect the landscape of innovation in society in a negative way?

Wilson: Look it's hard, right? The other day my wife and I—she said, “You need some new clothes.” I said, “Yeah, you're right, I do. Let's go shopping.” And she said, “You know, I really don't want to go shopping, let's just buy this stuff online and if we don't like it we'll send it back.” And that's what we did. We didn't even go into a store.

I think retail is really suffering, particularly brick-and-mortar retail is really suffering. It's not just Amazon, but Amazon is obviously the big gorilla in that space, and it's not all good. I guess it's kind of good for us as consumers that I didn't have to go shopping that day, I could instead just buy it online and get it sent to my house.

Kirkpatrick: It is, obviously. That's why Amazon continues. There's probably not a single person in this room who isn't a good customer of Amazon, not just a customer.

Wilson: And Prime, by the way, is just a genius business model. I don't know whether it was an accident or whether Bezos figured this out ten years ago, but Prime is giving them a competitive advantage in the television business, giving them a competitive advantage in the music business. Because I want free shipping, now I'm going to get free movies and I'm going to get free music and everybody has to compete with that, has to compete with somebody who is effectively subsidizing their music and video service with a shipping service.

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Kirkpatrick: And they can keep cranking the price up on that slowly.

Wilson: And by the way, it's anti-competitive. Let's just be honest.

Kirkpatrick: Thank you. I wanted you to say something controversial.

Wilson: It is. It's anti-competitive. By definition, it's anti-competitive.

Kirkpatrick: There are several monopolies emerging that are of—

Wilson: Emerging? Emerged.

Kirkpatrick: Of a new sort. Let me just go to the—

Wilson: I still believe that every 20 or 30 years the technology industry comes up with a new technology and a new business model that the incumbents have a hard time reacting to. I think it's going to happen again. I think even Amazon will be impacted. Look, Microsoft was massively impacted by the Internet. Massively impacted. Remember, we were back there in the '90s, we said, oh my God, Microsoft, they're going to own the entire tech industry. Right? Twenty years later, they're like number five or number six?

Kirkpatrick: Linux didn't help them too much either.

Wilson: That's my point. But they're still around. They're still a big company.

Kirkpatrick: They're actually sort of thriving right now.

Wilson: Right, better management. So I think that none of these companies are going to go out of business.

Kirkpatrick: And the blockchain, you seem to have a lot of confidence that either blockchain itself or that kind of model will play a very significant role in this next wave of innovation. Is that overstating it?

Wilson: Absolutely. Look, the architecture of the Internet is beautiful but there are a bunch of things it doesn't do very well. We can just talk about some of them. The whole cybersecurity issue, the fact that things are getting hacked right and left. Things like malware and spam and phishing. Things like the fact that the monetization models tend to be very attention-driven, the fact that all of our data is stored in someone else's servers and not our servers. So our search history, Google has; our purchase history, Amazon has; our friend graph, Facebook has.

Kirkpatrick: Email, Google.

Wilson: Right, email Google too. So none of that is actually good, right? If we were to go back and re-architect the Internet we would not have done any of that. Walter Isaacson wrote a great article about this maybe a year or two ago where he outlined this whole thing: this doesn't work right, this doesn't work right. We've got to fix those things, and I think we will fix those things.

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New technologies will emerge that will fix those things. New protocols—I think that this is going to be protocol-based innovation. I don't think necessarily new companies are going to be built, but we're going to have decentralized storage, decentralized compute, decentralized security. All these things are going to be happened and I think they're going to be monetized with a token or a coin-based business model, as opposed to a subscription or advertising based business model.

Kirkpatrick: And you're invested in Ethereum, am I right?

Wilson: I own some Ethereum.

Kirkpatrick: Okay, so—

Wilson: By the way, the other beautiful thing is—

Kirkpatrick: Ethereum is a blockchain kind of wannabe, corporate-ish—

Wilson: Here's the thing that's broken. The whole corporate finance system on the Internet is broken. Rich people like me, or venture capitalists like me get to invest in the next Facebook, the next Twitter, or the next Google. The average person, they're not even allowed to invest in that because it's not a publicly traded company and they have to be an accredited investor to invest in it privately. The beautiful thing about crypto-tokens is that anybody can buy them. I know people who bought Ethereum at 30 cents, it's now \$90 dollars. These are just average people, people who put \$1,000 dollars into Ethereum at 30 cents. This is the way it should work. If I'm using a piece of technology, if I'm using Facebook or I'm using Twitter or I'm using Google and I'm saying, "Wow, this is the most amazing thing in the world," I should be able to take a little bit of my money and go buy stock in that thing.

Kirkpatrick: Actually, I argued when Facebook went public that they should do a special offering to their users. They could not have cared less about that idea. Google tried some slight version of that with their reverse auction that they did when they went public, trying to make it accessible—

Wilson: Here's the problem with that. Are you doing your users a good thing by charging them \$80 dollars a share for the stock? Is that a good thing? Because then maybe the stock goes to \$40 dollars and then you've screwed your users. It's too late by the time you go public. You have to do it at the ground floor, right at the very beginning. That's when you've got to do it.

Kirkpatrick: And when you say "coin-based" or "token-based," that's the heritage of blockchain, although it may or may not use blockchain and bitcoin.

Wilson: People, when they think about blockchain, they think of bitcoin, which is kind of a problem because bitcoin has so much bad baggage. You have Mount Gox, you have Silk Road, you have ransomware. You have all this bad stuff that people have done with bitcoin. It's a little bit like bit torrent that was used—bit torrent wasn't a bad piece of technology. It was used badly

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and so it was harmed. I think that bitcoin probably will not be the dominant public blockchain for a whole host of reasons and that's one of them.

Kirkpatrick: Okay, so many things to talk about and so little time. The government, the role of government in this age. It's interesting, you're coming across as pretty big league optimist.

Wilson: I'm a huge optimist. I don't think there's a bigger optimist that I know.

Kirkpatrick: I haven't heard anybody talking more optimistically than you're talking right now.

Wilson: You know who's an optimist? Marc Andreessen is an optimist. I listened to him on a podcast yesterday. He may be more optimistic than me.

Kirkpatrick: Well you're optimistic about democracy and capitalism, which is actually not that common of a mindset at the moment. But obviously you can't be too optimistic about the attitude the American government has had toward innovation and technology as a force in the economy and society because they have had no attitude for it. They seem to be disregarding it. Maybe that's what you want?

Wilson: Well it hasn't been bad. If we go back and look at the emergence of the Internet and machine learning and crisper and clean power, solar and wind and all these things that have happened that are great—flying cars maybe soon. We're not being harmed by the fact that the government's not really paying a ton of attention to it. Maybe if they were amplifying all of this we'd be better? But you can't argue that we're harmed by it. And by the way, the U.S. is the center of all this innovation and our government hasn't really been doing anything to stimulate it. So why isn't this innovation happening somewhere else where the government is doing something to stimulate it? The only place possibly that is more innovative than the United States is China, and there you do have a government that's probably more interested in amplifying this than here in the U.S. But other than that, I think we're doing okay.

Kirkpatrick: So does your optimism include a confidence that the U.S. will remain the world center of technology innovation?

Wilson: Is that a good thing?

Kirkpatrick: Well that's a debatable thing. I'm just asking what you think.

Wilson: I think it would be better if technological innovation wasn't centered anywhere. Look, I'm not really a nationalist. I live in the united states so I care what happens in the united states but I would love to see technology based entrepreneurship thrive all over the world. I don't think it really matters where the next Elon Musk comes from. If the next Elon Musk comes from Kenya, I think that would be amazing. How awesome would that be?

Kirkpatrick: Does it excite you to think about the potential of technology to raise the standards of living of several billion people that are still basically left out? To me, that's just something—we've started a number of our events over the years with gapminder.org data that shows a very

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optimistic view but technology is going to be the force that allows those people to participate more and more. Is that something you focus on?

Wilson: The story of the last 50 years is that the wealth of the rest of the world has increased massively and the wealth of the United States has stagnated. Is that a bad thing or a good thing? It's a bad thing for certain people of the United States who are being left out, of course. But I don't think it's a bad thing for mankind, I think it's a good thing for mankind. It's made us safer.

We have terrorists and it sucks but I think that the standard of living, childhood deaths, disease, all these things are being reduced at a very significant rate around the world, and I think that's a good thing for people who live in the United States and people who live around the world. But it's hard, because if you don't have a job and your kids don't have a job that sucks.

Kirkpatrick: I couldn't agree with you more, but let's see how far your optimism extends because one of the things that is—Andreessen has been a big party to this mindset, this meme, which is “jobs are going to go away” and we don't really have a way to deal with those people. How do you feel about that?

Wilson: Jobs as we know it may go away. But I don't think we're measuring this very well. Look, we have had—you and I were talking about this on email. We've had a decrease in the number of new business creation, new companies created, but that's something that's been going on for 30 or 40 years, and I think that's been driven as much by these big brands like Walmart and Costco and Starbucks and their impact on small storefront businesses than anything else. But also what is a business today? What we see is 1.8 million sellers on Etsy. We see Stripe adding something like 10,000 new accounts.

Kirkpatrick: That's one of your companies, right?

Wilson: We are invested in Stripe. I see Shopify adding massive number of storefronts—

Kirkpatrick: Stripe's an online transaction engine—

Wilson: We see Kickstarter projects happening all over the place. So what is a job? My kids have friends who got out of school and couldn't find a job. They started driving for Juno and started driving for Lyft. Then they got together some friends and made a film and financed it on Kickstarter. The film got picked up by somebody and then they got hired to make a web video series by Netflix, and the next thing you know, they've got a job. But they're freelance, they're not working for anybody. They're working for themselves. You know the Jay-Z line that I love? The Jay-Z line says, “I'm not in business, I am a business.” That's the future. By the way, you're the same thing.

Kirkpatrick: I'm a little bit of an entrepreneur.

Wilson: You started this.

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Kirkpatrick: Yeah, we started this. Oh, it's great, it's nice, and it's still here seven years later. We did create a job for ourselves, that's at least that.

Wilson: Would you rather be doing this or working for some big media company?

Kirkpatrick: That's not even a question, I just wish I'd done it 20 years earlier, that's what I always say—

Wilson: Kids coming out of college today have to do it.

Kirkpatrick: It's a way different mindset.

Wilson: They have to do it. But is that a good thing or a bad thing? I think it's a good thing.

Kirkpatrick: So you think that even as automation spreads its tentacles across more and more and more of society and many routinized jobs are replaced by automated function that people will find things to do?

Wilson: That's what I see. If you look at—if you're measuring the number of companies that are being created or the number of full time jobs that there are in the economy, you might be measuring the wrong thing. What I see is people are still renting apartments, people are still shopping at Whole Foods. People are still able to do the things they need to do, so money must be coming from somewhere else. Debt loads are not rising. We had this period where debt loads were really rising in our country but that's not really happening anymore. So where's the money coming from? It's coming from somewhere else. We're not doing a very good job of measuring the new economy. I think we're still using old economy measures to measure the economy and we're missing a lot of this.

Kirkpatrick: Is that because of free goods among other things?

Wilson: Absolutely.

Kirkpatrick: Things we get for free on our incredible magic devices that are magic, truly?

Wilson: Absolutely.

Kirkpatrick: Okay. We actually—I don't know, the time is going to go, we've got a little more time.

Wilson: We have three minutes and 15 seconds.

Kirkpatrick: That's not true, we're going to go a little longer. Audience, get ready to ask a question. But I'm going to throw one thing out because your perspective is so interesting and it's obviously in the news, and you're not an investor at Uber. What has gone wrong at Uber, and what does that say to you about the system, or Silicon Valley, or the attitude of investors, or the mindset of entrepreneurs? There are a lot of lessons there that we have not learned.

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Wilson: I think that Uber had a strategy that didn't actually work, which was they were going to run the table on the ride sharing industry and they were going to put everyone out of business by raising more money than anybody else so they could forward-price and drive their competition out of business. They thought that there were network effects in that business and that once they had done that every driver would be on Uber and every rider would be on Uber and then they would own the market in the way that Google has run the table on search.

Kirkpatrick: The name certainly reflects that mindset, doesn't it?

Wilson: Yes. They thought that they were going to do in ridesharing what Google has done in search and what Facebook has done in social and what Amazon has done in commerce and it turns out, for whatever reason, that you can't run the table on that market. The drivers will drive on multiple platforms. In their car they'll have four phones up. On one they're going to have Juno, one they're going to have Lyft. And the other thing that turns out is that riders are very price conscious and they're going to have two or three services on their phone and they're going to constantly check the cheapest way to get home to Brooklyn at night. It just didn't work.

Kirkpatrick: So are the sort of elements of what I would say, certainly illegality and more or less corruption that have emerged in parallel to all of that somehow a function of miscalculating on that and overly aggressively pushing internally? The sexism is a whole other matter. How do you explain all that morass of horrible stuff?

Wilson: I think it all sort of comes from that mindset of "we're going to dominate this industry, we're going to win this battle, and we're going to win it at all costs."

Kirkpatrick: Did you ever consider investing?

Wilson: I did.

Kirkpatrick: Did you meet Travis Kalanick?

Wilson: I did.

Kirkpatrick: What happened when he pitched you?

Wilson: We didn't like each other.

[LAUGHTER]

Kirkpatrick: Well, I think your instinct might have been right there.

Wilson: Or his instinct might have been right.

Kirkpatrick: He got money somewhere, there's no doubt about that.

Wilson: Had we invested when we had that opportunity—

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Kirkpatrick: You would have made a lot of money—

Wilson: On paper. No one's made any money in reality on that company.

Kirkpatrick: There've been some private transactions haven't there?

Wilson: I don't think so. I think the other thing that they've done is that they've locked up their cap table so tightly, and that's part of the problem. Really, everything that's gone wrong is a function of their strategy to control everything and go very aggressively. Travis never wanted any secondary to happen because he had a voracious appetite for primary capital. So he locked up his cap table and that's made people very desperate.

Kirkpatrick: Okay, who has a question or comment for Fred? And we do believe in comments as well as questions.

Wilson: Oh, I like that.

Kirkpatrick: Right here, get the mic.

Wilson: Not a lot of people do that when they do Q&A.

Linda: I think it's a good question. I love the fact that you're really optimistic about the future. You're using examples that everybody can be entrepreneurial or have their own business. But some people don't have that mindset. They'd rather be a worker. I know there are people who could just drive for the Ubers and the Lyfts of the world but can you answer what other kind of opportunities someone can have?

Kirkpatrick: Esther's nodding at that one. I don't know if it's a comment or a question but it's very good.

Wilson: I'm not suggesting that everybody's going to be an entrepreneur. I'm just suggesting that more and more people are going to be entrepreneurs. There will be jobs for people who want to just have a job.

Linda: And that's what I'm asking.

Wilson: Right.

Linda: What kind of jobs do you foresee that are not entrepreneurial but that maybe can support the entrepreneurial—

Wilson: We're still going to need nurses, we're still going to need teachers, we're still going to need people who provide fundamental human needs, food, people in the food industry—I think there are going to be plenty of jobs. I'm not of this view that all the jobs are going to be wiped out by machines. Some will, for sure.

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Linda: I was just thinking that maybe you had some clever idea of how the new technology can help support some of the people that don't want to be entrepreneurs but they want to be part of that new wave. That's what I was thinking.

Wilson: Yes, well there are all sorts of new ways to find jobs, there are all sorts of new ways to rent apartments, there are all sorts of new ways to basically live a lower cost lifestyle. As you were saying, the other thing that's going on is if you want, the cost of living can be much, much lower today than it was in the past because there are a lot of things that you don't need to do. You don't need to own a car anymore. There are a lot of things you don't need to do. I'm fortunate because I have kids who are in their twenties who came into the workforce in the past five years, and I've watched how they and their friends have navigated it. They're much more mobile in terms of they don't sign long-term leases, they move around a lot.

Kirkpatrick: They don't want to buy a car, that's for sure.

Wilson: They don't have cars, they use lower cost ways of doing lots and lots of things and they find jobs, some of them use freelance networks to find jobs, some of them use some of the new technology to find full time jobs. I think certainly the age of being able to go get a job and feel secure, I think that's gone. But I think you can have a job and not have to be an entrepreneur.

Kirkpatrick: Okay, just to keep moving quickly.

Wladawsky: Irving Wladawsky, and I'm a friend of David's.

Kirkpatrick: And a long time IBM Tech leader and thinker.

Wladawsky: Let me add to Fred's optimism about our institutions. I think it's because our system of checks and balances is actually brilliant. That's not a new thing, but let me add to that system not just the federal government, let me add the role of the states, the role of the press of course, and the role of business. And I really believe that one of the most socially liberal forces in the country is the business community. Look at gay marriage. Look at the ouster of Bill O'Reilly. It's because the advertisers said, you know, if Daimler feels that their female customers aren't going to buy Mercedes if Bill O'Reilly is part of their thing, there goes Bill O'Reilly. A lot of it is the feedback from the market—

Kirkpatrick: What about tech, though, Irving? Do you think that tech—individual empowered by the Internet is part of it, too?

Wladawsky: It could be, but I'm more focusing on empirically what has happened.

Wilson: I think health care, as broken as it is, is another example of that. The employers in this country provide most of the funding for health care and have been very generous. Look at the new maternal leave policies, paternal leave policies for newborns. There are a lot of things that big business is doing that are very socially liberal.

Kirkpatrick: Okay, if they're comments, you don't have to respond either.

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Wilson: I see. [LAUGHTER]

Kirkpatrick: Quick. Okay, back there. We're going to try to just get a couple more and then we're going to have to wrap. Right there – no, there. Let me pick them thank you very much.

Audience: Good morning. So three quick things. First, data science is a job in tech with high growth where you don't have to be an entrepreneur, so there are jobs in tech too. On your optimism though, if you look past the corporate balance sheets, debt loads are rising. If you look at car loans, both length and amount, if you look at credit card balances Wall Street – especially the regional banks—are pretty uneasy about that right now. And then when you share that from what you see people are still shopping at Whole Foods—Mark Zuckerberg did a great thing. You can argue whether it was enough but he's going around the country to talk to people who aren't in Silicon Valley or New York or other centers. That might be something you want to do. It's not that great out there.

Kirkpatrick: Interesting. Esther—because Esther's Esther.

Esther: Yes. Just to call out that a little more, you see kids coming out of college, but there are lots of kids who don't get into college and don't graduate from high school. There are people who, if they invested in something that went bad, it's not part of ten things they invest in where over time, they'll do fine. There are a lot of people in the country who can't take those risks and don't have the funds or the education or the flexibility to do any of that stuff. I'm not arguing with you but I'm hoping that you'll pay more attention to that part of the country because those are the people who elected the person you don't want to talk about. They're there and they're really important, and we as a society need to figure out how to help them. If you don't agree with them, help them understand your point of view by giving them an education.

Wilson: Sure, I think education is the answer to most of these problems.

Kirkpatrick: Yes, and let's just not stop—one of the things I should have said at the beginning, what Fred has done in his own philanthropic and personal energy work in education is extraordinary, particularly in New York City. He's on the board of NYU, he played a role in the merger with Poly, I believe. He's certainly helped start a huge bunch of computer education in the New York City schools, including starting an entire new high school for computer science education.

Wilson: It's more than that, David—

Kirkpatrick: Tell me more. You've done so many things I can't even keep track of them.

Wilson: What we've done here in New York, and we've started a national movement, is that we have made it so that every school building in New York City has a computer science teacher, including the elementary schools. Ten to fifteen percent of every middle school and every high school will have a three-year or four-year effectively major in computer science. Any kid from Brownsville, from the South Bronx, from anywhere, if they want to become a data scientist or

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software engineer or a UX designer, will have the skills to be able to go get those jobs. I agree that education is the answer to a lot of the problems that we have in this country.

Kirkpatrick: There are so many things to talk about. Where's Simone?

Wilson: We've got to move on. We're getting the hook.

Kirkpatrick: We've got to move on. See, she's the boss. What can I say? We're very known, in addition to taking comments and question, for pretty much sticking on time, which is not that common in our industry either. But Fred, this was great, I really appreciate you coming. Thank you so much.