Podcast with Jeff Dyer of Brigham Young University

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Speaker 1:	00:00	This call is being recorded.
Jo Ann:	00:03	We have a very special show today because my guest is Jeff Dyer, who is a Professor of Strategy at BYU and at the Wharton School at the University of Pennsylvania. Jeff, welcome.
Jeff Dyer:	00:17	Thanks, Jo Ann. Glad to be with you today.
Jo Ann:	00:20	I was so glad that we got the chance to talk because you have been doing some really interesting work, much of it was Nathan Furr. And you have a book out called Innovation Capital, and you've been doing a lot of really deep thinking about how innovation is done, where it comes from, what are the keys to success. In particular, you've been comparing and contrasting the innovation styles of Elon Musk and Jeff Bezos. So we are going to have a lot of fun listening to the insights that you've gotten from all of that. So for starters though, tell us about yourself.
Jeff Dyer:	01:05	So I started my career at Bain & Company in management consulting, and then I decided I wanted to be more of an expert. So I went back and got my PhD of Strategy at UCLA and then became a professor at the Wharton School, where I studied strategy and innovation for 25 years. But I left Wharton full-time and went to part-time there and came out to the Rocky Mountains, back to where I had grown up. I love to ski, so I grew up skiing at Sundance where they started the Sundance Film Festival. I have a family of three kids, my wife and three kids, that love the mountains and the outdoors. And so now I split my time. Most of the year I'm at BYU, and then I do some teaching in the summer at the Wharton School.
Jo Ann:	<u>01:54</u>	That's fantastic. I love skiing in Utah. Oh my gosh, that's great country, so great.
Jeff Dyer:	02:02	Yeah. No, it's great.
Jo Ann:	02:02	So tell us, take us where you want to take us in this project that you've been doing on innovation. Just tell us what you're doing.
Jeff Dyer:	02:12	Sure. So I really began my work on innovation after a conversation with Clayton Christensen, who is known for disruptive innovation at the Harvard Business School, and Hal Gregersen, who is the head of leadership at MIT. And we were interested in-

Jo Ann: 02:31 Let me interrupt you for just a second, I'll say, we'll link in the show notes, obviously, to your book and also to Clay Christensen's book and site, including The Innovator's Dilemma, which is so relevant, I think, for so many people today. So, go ahead. Jeff Dyer: 02:49 Oh, good. Yeah, so my work in innovation really started after a conversation with Clayton Christiansen, known disruptive innovation at the Harvard Business School, and Hal Gregersen, who is now the Director of the Leadership Center at MIT. We wanted to understand where do business innovators ... or how do they get creative ideas? Jeff Dyer: So we really did a study of: what are the triggers for getting new 03:12 ideas? And that really led to this model of creativity is more a product of your behaviors than you think. If you'll behave differently, meaning question, observe, network, and experiment more frequently, you'll get more new ideas. So then we had folks come to us and say, "Well, I've got a good idea, I think. Should I invest my time and money to do it?" Jeff Dyer: 03:44 And that led to a study that led to the book called The Innovator's Method, which was a study of the methods that the best innovators use to test and validate their ideas. But then we had folks coming and saying, "I've got a good idea. I think I've tested and validated, but I can't get my boss to support me in pushing this forward at our organization, or I can't get financiers or people to join my team to start a new venture." Jeff Dyer: 04:16 And that led to our study of what we call innovation capital, which is the capacity of people to win backing for their ideas. And so Innovation Capital is our new book on innovation leadership, which is really: how do I convince others? So I think of other sponsors almost as my customers, whether it's my boss, whether it's a financial backer, whether it's someone who I want to join my new venture. How do I convince that person to join my innovation project? And that's really what Innovation Capital is all about. Jo Ann: 04:55 Fantastic. And so what are the key learnings from it? Jeff Dyer: 05:01 Well, what we learned is that being successful at convincing others begins with a skill, a human capital skill, that we call forward-thinking. And forward thinkers are able to really sort of

engage in mental time travel to look into the future, to try and see: what will customers or sort of people in my industry want next? And they also are good at understanding what new technologies are emerging that will allow us to do new things. And that really means that they're good at spotting opportunity.

Jeff Dyer: 05:46

And if you can first start by being able to generate opportunity, and then you've got to work to convince others that this is an opportunity worth pursuing. And that's where your social connections, so building social capital with the right set of folks, innovators and entrepreneurs, financial backers, organization leaders, influencers, and so on, folks that have the ability to bring key resources to your project becomes critical.

Jeff Dyer: <u>06:19</u>

And then the third thing that's really important is that you start to build and leverage a track record of innovation. And as you build and leverage a track record of innovation ... So even having some success on a small project, being a founder of a small project in your company, can help you build a bit of a reputation that: I am pretty good at doing new things. And when you combine those elements of it, your sort of human capital, skills of forward thinking and persuasion, your social capital connections with the right set of folks, and then building a reputation for innovation; as you work on those three things, that will help you to be able to persuade and convince others to sponsor and support you and your ideas.

Jo Ann: <u>07:09</u>

Very interesting. Can you share an example or two?

Jeff Dyer: 07:15

Yeah, I think some good examples of the difference between being a great creative or inventor and being really great at being an innovative leader and developing the skills I just talked about would be the comparison between Thomas Edison and Nikola Tesla, or Steve Jobs versus Steve Wozniak. Now Wozniak and Tesla both built some of their own innovation capital, but they're mostly known as more sort of inventors.

Jeff Dyer: 07:51

The difference between Edison and Tesla was Edison, when he helped develop an invention, he was very good at promoting it to magazines, to newspapers. He literally took the photograph the day after they invented it, went down to Scientific American, really important publication of the day, and demonstrated it to the editor and the entire office, and really generated a lot of buzz and publicity by doing that. When they developed sort of the light bulb and he was starting Edison

Electric, he networked to the Vanderbilts, to J.P. Morgan and others who were important financiers. And he agreed to take electricity to J.P. Morgan's home, to be among the first in New York City, as he got the money and backing to start Edison Electric. And he was really good, actually, with the press. He would set up interviews. He would even reportedly smear soot on his face as he'd come in from the lab to make it look like he'd been working hard for a long period of time.

Jeff Dyer: 09:06

So Edison was really good at getting people to join his team, people to back his projects; very good at persuasion and promotion in a way that Tesla simply wasn't. And Tesla was never able to commercialize his ideas, and in fact died penniless in a New York hotel. In contrast, Edison had his birthday named as Inventors Day, and was given the Congressional Medal of Honor for his inventions, and died sort of rich and famous as the founder of Edison Electric.

Jo Ann: 09:47

Fascinating. So how much of this is learnable? I mean, some of it, as you said, social capital ... We do think sometimes of the genius inventors who don't have the social skills, they want to be left alone or whatever. So for regular people to put this to work, what's some of the advice?

Jeff Dyer: <u>10:17</u>

Yeah. So I mean, it's true that we do tend to look at the outliers, the folks like Edison or Jobs or a Jeff Bezos or Elon Musk or Indra Nooyi. So those folks really have emerged because they have been really successful at leading innovation at their organizations. And this helps them build or develop their reputation for innovation.

Jeff Dyer: 10:50

But if I'm starting my career, so I don't necessarily have social connections, I don't necessarily have a reputation for innovation, so what can I do? Well, the first thing you can do is realize that you can borrow the reputation of an organization to help be your own. So if you can try to go work for a company that has a reputation for innovation, and it could be an Amazon, a Google, a Tesla, an Apple or so on. Those of course are the bigger names, but it also could be a startup that is doing something that is quite new or innovative. And we see this here in Utah with a number of unicorns, like Qualtrics with experience management software that's making a big difference and health catalyst in healthcare.

Jeff Dyer: <u>11:51</u>

So you can borrow reputation by trying to get on either as a full-time employee, you could agree to work as a free intern, but anything to try and help bring some brand to you that helps you sort of brand yourself as someone who may be innovative. And then you have to start to network with the entrepreneurs, with innovators. It makes a difference if you know other people who've had some success with innovation. So you have to make a conscious effort. I know a fellow named David Bradford, who we write about in the book. David says he spends one to two hours a day, and he's done for the last 25, 30 years, on networking. And he has 30,000 LinkedIn contacts that he can reach out to. And he was able to network ... He was the CEO of a startup called Fusion-io. He was actually able to network and bring Steve Wozniak to be the Chief Science Officer. He met Steve Jobs, Bill Gates, others, in their heyday, because he was really, really good at networking.

Jeff Dyer: <u>13:06</u>

So you have to spend time at it and you have to try and start to build relationships with organization leaders, innovators and entrepreneurs in particular, and even folks maybe in the venture community, if you have aspirations to start a company. And then you have to start to spend time really looking at the trends. You've got to be a scout. And these are trends around customer preferences and trends around new technologies. Sort of regularly looking at the lnc 100 or other sort of new startups, and what are the new business models that are emerging, and what are the new technologies that are emerging? And hopefully that helps you to find people with great ideas, because it doesn't necessarily have to be your idea that you take and promote.

Jeff Dyer: <u>13:48</u>

People often forget, Elon Musk did not start Tesla. Tesla was started ... named ... had the sort of the first product in development before he ever joined as the chairman of the board and then later became the CEO. So you reach out and you maybe find ideas and then help take those ideas forward rather than generating them on your own. But those are some of the things you can do sort of early in your career to start to build this capacity to win resources and attention for your ideas.

Jo Ann: 14:23

All those points are great, but the one on scouting, especially at the technology frontiers, it's so doable and it doesn't occur to people enough. So many people are in their silo, they're an expert in their realm, and so on. And I always encourage people to just read Wired magazine, if you're not a tech person, or even if you are.

Jeff Dyer:	<u>14:49</u>	Right, right.
Jo Ann:	14:49	I mean, just find out what's coming outside your own field because it'll come to your field, too, at some point. And yeah, that's great advice. So a lot of our listeners-
Jeff Dyer:	<u>15:02</u>	Yeah, I think that-
Jo Ann:	<u>15:02</u>	Yeah, go ahead. Go ahead.
Jeff Dyer:	<u>15:04</u>	No, I was going to say what it does, and this goes back to our work in The Innovator's DNA, is it's pattern recognition; that as you start to see others doing interesting new things and you see a pattern, then you think to apply it maybe to my business. And so for example, I had some undergraduate students watch the emergence of Uber and Lyft and Airbnb, and they launched a new business called Neighbor, which they call it the Airbnb of storage. And it's finding people that have extra storage in their homes and their garages or whatever, and finding people who want storage and connecting them. And they're the Airbnb of storage.
Jeff Dyer:	<u>15:52</u>	So that pattern recognition, you see something new emerging, can often lead to your starting something based upon that similar pattern.
Jo Ann:	<u>16:02</u>	That's really interesting. Yeah. Other people figure out the breakthrough and then the rest of us tend to figure out how to apply it in new ways.
Jo Ann:	16:13	So a lot of our listeners are in financial companies and financial regulatory agencies, and these are not known as a hotbed of innovation. Certainly, finance has done a lot of innovation over the years and over the centuries, even. If you're in a bank, it's sort of an inherently conservative environment, very focused on risk aversion. If you're in a regulatory body, even more so, you exist to be mitigating risk. And yet, everyone who listens to this show knows that they're going to have to speed up and embrace technology in new ways, that if they don't, the technology is just been to leave them behind.

Jo Ann: 17:04

So how do you ... You gave the example of going to a place that has an innovative DNA and starting to leverage that. What if you want to stay in a place that doesn't have that? What advice do you have to become innovative there?

Jeff Dyer: 17:21

Yeah. Well I think you need to start ... Again, I would go to: are you trying to be a forward thinker with regard to what's likely to happen with banking and finance in the future? And you've got to think about sort of what new technologies are emerging and how might that influence the way we deliver financial services, and how are customer preferences likely to change over time.

Jeff Dyer: 17:54

So I know the other day I was having a conversation with some folks in the banking industry and I was asking them about robo-advisors, because it very well may be that ... Artificial intelligence, to have someone be your financial advisor, it's not there today. But what we know from low-end disruption is that if we can improve the performance of a robo-advisor, at some point, and the way the changing preferences are for young folks today who are really comfortable with technology, it may be that I call my robo-advisor. And that robo-advisor's going to have a lot more information at its disposal, right, because it basically is a computer that can tell me what are the top performing mutual funds the last five years. Or we could easily go through different investment options and sort of prioritize those based upon risk. That could happen, and we might see a whole new generation of folks who are receiving their financial advice from a robo-advisor, and then only going to a person when they have somehow a more complex problem that a robo-advisor can't really resolve.

Jeff Dyer: <u>19:22</u>

And so then part of the question is: if I can do all of those ... sort of getting questions answered, and do all of my transactions, and it's voice-activated, it recognizes my voice to know that it's okay to do this transaction, you start to wonder about the need for branches and brick and mortar and all of that. So thinking ahead 5, 10, 15, 20 years, what are the technologies that are coming on that really could change the way we deliver, the value that customers really want, and how are their preferences changing for being able to really conduct their financial affairs in a way that's completely convenient and it meets their functional and emotional needs, meaning they feel comfortable, they're making the right decisions?

Jeff Dyer: <u>20:16</u>

So I would say you've got to start asking the questions about what is the future bringing, how are customer preferences changing, what new technologies are emerging? And then start to read about different technologies and changing customer trends to see if you can start to then imagine how things might change, and then how might we start to take steps in that direction. We're not going to introduce the robo-advisors today, but what are the steps that might come that will lead to the changes that customers really want in financial services?

Jo Ann: 20:52

And do you have tips on how to craft those first steps? I think a lot of people think that ... Bill Gates famously said, "We tend to overestimate the change that will happen in the next two years and underestimate what's going to happen in 10." I think a lot of people can imagine that technology is going to change the future of finance in a lot of ways, but they have no idea how to get there from here in a way that's practical. So that's where you start building your little projects that you were talking about before, and [crosstalk 00:21:27]?

Jeff Dyer: 21:27

Yeah. Yes. I mean, this is where organizations that are effective at innovation try and create opportunities for folks to learn. So again, you could imagine whether it's through training, where they're actually doing sort of training around new technologies and changing customer preferences and they're trying to bring in things for their employees to read and think about and have opportunities to have conversations either in training sessions or in just their regular teams. But then you want to, if you can, as you spur ideas by bringing, again, sort of what are some of the latest trends, even financial services? What are the sort of new emerging companies in financial services, what are they doing, how are they doing it?

Jeff Dyer: <u>22:23</u>

But then you want to create an environment like Amazon has done where they try and really allow folks to propose new products or services or projects. And then they have a process for vetting that idea and funding it like a startup in Silicon Valley, and giving it some milestones and a team, and then taking that forward. And I had the opportunity to interview ... I've interviewed Jeff Bezos and the leaders of the three main business units in retail, in web services, and devices. And they say that they personally each review at least 100 of these new project ideas a year, so that's 300 sort of at that CEO level. And they say there are many more that happen below them. And

they probably green-light maybe 20% of them, they said. But that means that they're green-lighting at least 60 new startup projects at the higher levels at Amazon each year, and then more below.

Jeff Dyer: 23:35

And that's the way you get more innovation at the organization level, is you try and bring Silicon Valley inside in the sense that you're trying a bunch of new ideas, you try and hit milestones, and you have those laid out and reviews, and you give them funds and resources as they make progress towards the milestone. And then if they prove out that the idea's not likely to bear fruit, then you move to something different and you continue to experiment. And if, as Jeff Bezos once told me, he says, "At Amazon, we've tried to reduce the cost of conducting experiments and having lots of startup projects, because if you could increase the number from 100 to 1,000, you dramatically increase the innovations that you'll produce."

Jo Ann: 24:21

Very interesting. So speaking of Jeff Bezos, why don't we turn to talking about your list of 10 most innovative leaders, and we're going to link in the show notes also to your article in Forbes in September on this. But tell us what you found, and then I want to turn to talking about the insights that you found in thinking about Jeff Bezos and Elon Musk.

Jeff Dyer: <u>24:47</u>

Yeah. So we developed the methodology to rank leaders really based upon their innovation capital, meaning their ability to win and bring resources to their organization. So it's not necessarily who's the most creative, but it's who gets the most media attention around doing innovative things. So we actually measured the number of articles in major business sources around their ability to do that. We measured their Twitter followers, their connections through LinkedIn, their followers. And then we also looked at whether their companies had created value. So market value, increased stock price appreciation, and whether their company had an innovation premium, meaning investors were expecting innovations going forward.

Jeff Dyer: 25:36

In that ranking, we applied it to the essentially sort of S&P 500 firms, so the companies above \$10 billion in market cap. And Jeff Bezos and Elon Musk emerged at the top of that list, and we applied the methodology, and they were basically in a virtual tie for number one. We've had a chance over the last three, four years to interview both Bezos and Musk and the top lieutenants

that work for them to try and understand their styles around innovation leadership. And what we've learned is that they really have contrasting and somewhat different leadership styles that have allowed them to be successful. So there's not sort of one best way or only one way to be an effective leader of innovation. And I think that was, I think, something we didn't necessarily expect. And [crosstalk 00:26:35] I'll just comment on a couple of those differences.

So when Elon Musk pursues an arena, he tends to pursue those where there's a lot of technological uncertainty around the innovation. Like, can we do it, like can we fly into space and create a reusable rocket? Can we create an electric car that will

Jo Ann: <u>26:38</u>

Jeff Dyer: 26:40

go 300-plus miles on a charge and be fast and safe? Can we create a power wall battery that you can put in your garage and might change the way we distribute energy? Can we create a Hyperloop to send people to San Francisco, to L.A., in a tube or boring with tunnels?

Yeah, please do.

Jeff Dyer: <u>27:38</u>

So he tends to pursue projects where there's a lot of technological uncertainty, and he tries to lay out a lofty and exciting vision for folks, because what he's trying to do is he's trying to convince great engineers, great scientists, great employees to join that effort, to really make that lofty vision a reality. And so he tends to be big and bold with his visions and with what he expects. And a lot of times, we find he doesn't ... with Tesla, he doesn't hit what he said they will do, but he has said, "You've got to look for a great result in order to get a good result." And so some people think that maybe he tries and pushes too forward. But he's very bold out there and he's out there all the time.

Jeff Dyer: <u>28:32</u>

In contrast, Jeff Bezos has tended historically with Amazon to pursue innovations where he's really trying to understand customer preferences. So it's more demand uncertainty rather than technological uncertainty. He knows he can build the website, he knows he can build a way to deliver perhaps the retail experience. He just doesn't know exactly what customers want. And so a lot of the innovations are around trying to figure out what are customer preferences. And so they have this process called working backwards from the customer, and he's very customer-obsessed. He doesn't want to be big and bold about it because he doesn't want to let others know about what

they think are important customer needs that they're going to be trying to meet going forward.

Jeff Dyer: 29:16

So he tends to be more of a sort of quiet, more step-by-step, where he's not proclaiming bold visions. And this seems to be a personal preference as well because even when he started Blue Origin, his space company, he was very quiet about it. He actually started Blue Origin before Musk launched SpaceX, but he was very quiet about it, just wanting to go step-by-step, lay out the process, and then he wants to prove it out and sort of show that it's going to work. And that's the way he gets attention, by demonstrating that it's going to work.

Jeff Dyer: 29:51

So the two individuals, they have really somewhat different leadership styles, and partly because of the kinds of problems they're attacking, but both have been successful. But again, somewhat different with the ways they approach innovation leadership.

Jo Ann: <u>30:11</u>

Very interesting. I know you've also found contrast in their approach to planning for innovation. Can you talk about that?

Jeff Dyer: <u>30:22</u>

Yeah, so Jeff Bezos, I would say, is someone who he really appreciates this notion of: how do we get others involved to bring their ideas? He's typically the last to speak at meetings, but then he very much is going to take a sort of a step-by-step approach where they lay out where they're going next and they move to sort of hit that milestone. And as one writer who studies both Musk and Bezos described it, he's much more sort of like the tortoise, where he's sort of going step-by-step moving forward.

Jeff Dyer: <u>31:16</u>

And Musk is much more like the hare, where he's actually looking for sort of a quick, major breakthrough to constraints. So it's like, what is the major constraint to an electric vehicle going 300 miles on a charge? Well, it's the weight of the vehicle and then it's the battery technology. So he then uses actually ideas from SpaceX on how do you keep a rocket light, to applying it to an automobile, how do you keep an automobile light? And brings really aluminum bodies to automotive as the way you overcome the key constraint. So he's trying to pursue sort of major constraints with sort of big breakthrough ideas on the technologies that will get him where he wants to go.

Jeff Dyer: 32:11 So I would say one is much more a sort of step-by-step, deliberate planner, and the other is looking for the major constraint to overcome, and looking for sort of that breakthrough that's going to push you forward. Jo Ann: 32:29 Interesting. And what about as leaders of people: the styles of delegation, empowering employees, work environment? Jeff Dyer: 32:43 It's interesting, one of the direct reports and a co-founder at Tesla, J.B. Straubel, said about Elon, "Elon's willing to push people far beyond what they thought they could do, and most leaders aren't willing to do that." And he said, "And then I think people are surprised by how much they're able to accomplish." Jeff Dyer: 33:09 And so in pushing for these breakthroughs, I think Elon Musk is reportedly in some ways more challenging as a leader to work for because he's really trying to create these big breakthroughs. And if you aren't contributing to the breakthroughs and able to deal with really being pushed hard to come up with something that will really push the company forward, I think that is in some ways a more challenging leadership style. And Steve Jobs was known as being somewhat similar in that regard. And so I think generally we have seen much more turnover at Tesla and at some of Musk's organizations. And I think that it comes in part from that leadership style of being really demanding, pushing for breakthroughs. And you've got to satisfy him. Jeff Dyer: 34:16 And you also need to satisfy Jeff Bezos, but I think Bezos is much more likely, again, these are from people who've worked with him, to really give folks a little bit more leeway in terms of what they're pursuing, as long as they're really trying to push it from the customer backwards to what needs to happen. And he's had a much more stable leadership team. I think he's demanding, but perhaps in a way that folks feel a little bit more psychological safety in the organization. And so again, different leadership styles in that regard. They both seem to have been quite successful. But I do think that folks experience Bezos and Musk a bit differently in terms of sort of their day-to-day interactions with them as leaders. Jo Ann: Very interesting. Are there other ... And I know we're going to <u>35:13</u> run out of time. Do you have some advice that we haven't already covered, how people can learn from these examples?

Jeff Dyer: <u>35:28</u>

Yeah. I would say one of the things we learned from Indra Nooyi, who was the long-term CEO and then chairman of PepsiCo, is that you really want to draw on personal experience and things that you really personally care about in terms of engaging others to join you in support of an effort. Now she took over at PepsiCo when they were known as basically a junk food and soda company. And she founded and created the mega trends group to try and look into the future to see what Pepsi might need to do to change their portfolio of products. But she also created sort of a mission called performance with purpose. And she said, "We're going to have this purpose of creating a healthier portfolio of foods for the world and sustainable food systems and water."

Jeff Dyer: 36:28

And she would talk about how, growing up in India, her mom would get up at 4:00 in the morning every day to see if the water would turn on. And if it did, it would only be on very briefly, and she would fill every pot they had available. And that would be their water for a few days that they would use to drink, to wash, for everything that they needed. And she said this was at a time when there were big companies in the area that had full access to water and they were not being careful with it. And so she could tell this personal story about, "Why we need to have sustainable water and how where we're in countries and when we're developing food systems, we're going to reduce the use of water by" ... They'd have goals of 15% to 20%. "And we're going to try and leave our footprint better tomorrow than it is today in terms of the impact on communities and on the world."

Jeff Dyer: 37:32

And I think she was able to engage her employees in that mission and external stakeholders, because she was able to really tell a story where it would leave the world a better place. And I think engaging others to your initiatives, one technique is being able to tell your story about why this is important and why this is going to leave the world a better place. I think that can be very important to building your own innovation capital and pulling others to your initiatives.

Jo Ann: 38:10

That is a great note to end on. That's fantastic. The book is Innovation Capital, and the article, again, is in Forbes, on the 10 most innovative leaders. Is there other information you want to give people on where to reach you or your platforms?

Jeff Dyer:	38:29	Yes. If you go to innovatorsdna.com, we started an innovation training and consultancy when we launched Innovator's DNA, because many folks had questions and wanted to move things forward either individually, we have individual assessments, but also at their organizations. So if you go there, you'll find information about our ranking of Forbes' most innovative companies and innovative leaders, and also on our concepts and ideas in The Innovator's DNA, The Innovator's Method, and Innovation Capital.
Jo Ann:	<u>39:05</u>	Fantastic. And we will put all this information in the show notes and at that jsbarefoot.com. Jeff Dyer, I can't thank you enough for being our guest today. It's been fascinating.
Jeff Dyer:	<u>39:16</u>	Thank you so much for letting me visit with you. It's been a real pleasure.