

URL: <https://ecorner.stanford.edu/videos/disruption-and-abundance/>

Ann Miura-Ko is a lecturer in Stanford's Department of Management Science and Engineering and a co-founding partner at Floodgate, a VC firm focused on seed-stage investments. A repeat member of the Forbes Midas List and the New York Times Top 20 Venture Capitalists Worldwide, she was one of the first investors in Lyft and Refinery29, and has been an early backer of many others, including Xamarin and Thinkful. Here, she shares her takes on foundational entrepreneurial concepts like "product-market fit" and shares a vision for how bold, even disruptive innovation and shared abundance can co-exist.



Transcript

Announcer Who you are defines how you build.. 00:00:05,940 (dramatic synth music) - I am delighted to welcome Ann Miura-Ko to ETL.. 00:00:12,480 Actually, back to ETL.. How you doing this afternoon, Ann? (Ann laughs) - I'm doing great.. 00:00:17,460 How are you? - Well, I wish I had your camera and lighting, 00:00:21,370 I'll tell you that.. (Tom laughs) I wanna do this in three pastures or three parts, if you don't mind.. Part one is about radical innovation and exponential impact.. You often talk about deeply passionate, ambitious entrepreneurs and innovators, and they go out and they change history.. So let's talk about what it means to really change history, and what I'm hoping we do is we inspire people watching this and listening to this to appreciate that they can do that, and wow, do we need some history to be changed nowadays.. As we like to say at STVP together, the bigger the problem, the bigger the opportunity, and there are lots of problems that we need radical innovations for..

So, let's play a clip from 10 years ago when you spoke in the Entrepreneurial Thought Leaders seminar series at Stanford.. Let's play that.. - I wanted to take a step back first 00:01:17,300 to talk about the whole notion of innovation and the historical perspective of what innovation can actually do.. The first example that I would bring up is the Ford Model T, which in 1908 was launched, and in this time, there were only 200,000 cars in the United States.. The really amazing thing about real innovation is that it has a democratizing influence.. What the Ford Model T was able to do was it had a democratizing influence in transportation.. So you went from a world that had 200,000 cars in the United States, and five years later, Ford was selling 200,000 cars just in that year alone.. They would go on to sell millions of these cars, and it went from a world where a car was \$2,000, and then only 15 years later, it was \$200.. And that kind of influence with a shift in manufacturing can have a tremendous impact on society.. Our culture, our society, was shaped by the fact that the working class person could drive a car..

- Well, what a great way to start.. 00:02:32,370 I mean, come on, Ann.. Can normal people like me really change society in that way, and how do I identify such an opportunity? - Yeah, you know, I think the message, though, 00:02:47,940 just to start off with that message, which is from such a much younger, optimistic view of the world that comes from a younger, optimistic me, but you know, the message of "the world needs "more breakthroughs, and the world needs a better future" was true then, it's true 10 years ago, but my goodness, if it isn't true today.. And if we have more polarization, if we have a bigger digital divide, if we have more healthcare problems, if we have more climate change problems, we don't need incremental changes in the world.. We need radical changes.. And you asked the question, "How can a normal person create these things?" And I think actually, innovation doesn't just exist in Silicon Valley.. We don't have a monopoly on it.. You travel to any place in the world, and you see incredible innovation.. And so, innovation isn't just something that's a technological thing.. It's not just for engineers..

It's not just for Stanford students.. It's a universal principle.. It's the, "How do I dream of a better future, "and how do I bring it to us, closer to us, "today, rather than just hope "that someone else will create it for us?" - Well, I know something you talk about 00:04:31,990 when we're working with our students together, you talk about the story of Lyft, and although Lyft has its issues right now and so on, it has been a remarkable success, it and its main competitor, Uber.. So, what did you see in them, for example, that, speaking of transportation, since we were talking about the Model T, what excited you about those founders when you were their first investor? - Yeah, so back in 2000, I think it was 2010 00:05:05,797 is when John and Logan

came to pitch Floodgate on what was originally called Zimride.. Zimride was a platform that enabled carpooling for corporations as well as universities.. And the vision of the world that they actually painted actually describes a lot of what Lyft does today.. So this is sort of a good example of mission-driven founders who really believe in a vision of the future, and how that transcends different products.. So, the message that John and Logan came to Floodgate with in their early days was, "Look, we believe "actually transportation is about to change." The fact that we have social networks now and people can be connected to one another digitally actually implies something really fundamentally different, and when transportation changes, actually the world changes.. And they demonstrated this in just the United States alone.. If you look at the fabric of society, you would have canals, you would have railways, and then you would have highways, and if you just look at the map of where cities developed, it was very true that waterways, railways, and highways were actually the ways in which cities were created..

Where big cities existed existed because of these things.. And so, their point was, if we can actually change the way transportation is done, we will actually have a significant impact on the economy and the way the society lays out its land.. And I thought, "My goodness, "what a tremendous vision for what the future can be," and their future view was not just, "We're gonna enable carpooling." Their future was, "We don't want cars to sit empty "as they're going down the highway." And look around you.. You'll look at the car next to you, and there's a single driver in there.. That means that there's all these seats that are empty.. And if you think about it from a throughput perspective, for any operations research department or from a computing platform, that's a huge waste! And so, what if we figured out a way to fill those seats, or made them a little bit more full? That can actually change the way parking is done.. That would change the way rides are completed.. And that was the start.. And to me, that's the kind of founder I'm looking for, is someone who paints a picture of a future that is very different from today, and it's a future that I wanna see.. - Well, thanks for expanding on that..

00:08:10,600 I know you've done that with our students, and I never get tired of hearing about the story of Lyft.. And it's ironic that it was 2010 when you were with us in that clip, just coincidentally.. But you and I are also emphasizing this year in our teaching, and last year, about responsibility and ethics, principles, whatever word you'd like to use, to talk about that there's more to entrepreneurship and innovation, especially radically innovation, than making money.. So, how do you view that, and how does that affect your decision making when choosing who to invest in? - Yeah, I think it's a really important question, 00:09:02,550 and I think it's one that perhaps investors don't think about often enough.. It's one that's been pressed to the forefront.. Because of my role, I feel, as an educator, I feel a real obligation to think about these things.. So, the number one way in which I think about it is going back to this notion of a future.. The best entrepreneurs aren't just forecasting the future.. They aren't just saying, "Hey, this is where we are today, "and incrementally, if things continue in the direction "that we see, then it will become this." Rather, the best founders are creating a future.. They're building it and they're designing it..

And so, as an investor, one of the roles that I believe we play is really thinking through, "Is this a future that I want to see?" "Is it a future that is desirable, "not only for me, but for society?" And so, those are obligations that I think we ought to take seriously.. And one of the ways that I think about it is in terms of the future, and if you're designing the future, first of all, what is the type of entrepreneur that you want to work with? And I think at Floodgate, we have a pretty high standard for that.. We have sort of the "life is too short" test.. But we also recognize, because we're there so early, that we are not just investors; we're co-conspirators.. And if we're co-conspirators, we have to make sure that that's a relationship that we want to be in, not just for the short-term, but for 10, 15 years at a time.. And when you take that long view, you start to realize that there are certain things that you aren't willing to do.. But then there are certain visions of the future that you absolutely want to run towards.. And half of it is actually making sure that along the way, you aren't tripped up.. And so a good example of that is actually a class that I ran with John Mitchell in the Design School.. And so in the D School, we ran this class called "So You Want a Revolution: Blockchain Edition." And in the class, students were asked to create their own, design their own blockchain..

And one of the questions that we asked them was, "What happens if this revolution goes wrong?" And what was really interesting was a lot of these students came back with answers that had to do with lack of traction.. When they thought of the revolution not going quite right, it was just that the business didn't work out.. And that wasn't at all what we meant.. What we meant was, what if the revolution itself that you thought you were designing got derailed in a way that you didn't anticipate? And I think that's something that we should put a lot more thought into.. What if the community moves in a direction that you didn't intend? What if the information that you thought you were gonna keep private is no longer private? What if the data that you collected is no longer, it's not kept private in a way that you anticipated? So all of these things can change and morph in ways that you don't anticipate on day one when your userbase is five.. And so, those are things that I think we should be more actively engaged in, as educators, as product managers, as executives, and as investors.. - Yeah, well, I see this changing in realtime.. 00:13:18,170 I know our colleagues who are heavily involved in the AI Center at Stanford, this large one, the Human-Centered Artificial Intelligence Institute.. They are emphasizing this as much as the technology itself.. And I don't know, 10 years ago, that might not have been the case, when you were last speaking, so I'm optimistic about that..

So moving along, I wanna build on this innovation thing.. Now let's get a little tactical.. How do you actually scale something? Let's just say it's really a great breakthrough that has the chance to of course be worthy of investment and be sustainable that way but also have a positive impact and all these negative consequences have been at least thought of or somewhat addressed.. But let's go to some of the stuff you teach in your master's course that's so popular.. It's a couple of concepts for scaling called backcasting and notion of inflection point.. Can you talk a little bit about that? - Yeah, well,

actually, there's sort of three components, 00:14:30,430 and I'll go through backcasting and inflection points first.. I think backcasting and inflection points is more about this first ideation phase.. So I think our friend Steve Blank, who is going through some hard times today with wildfires, he came in and he spoke, he's talked a lot and taught a lot about this customer development, lean startup.. One of the things we've noticed is before you even get to customer development, you have a product.. How do you even come up with the idea for what you ought to pursue? So at Floodgate, because a lot of times, we are working with founders who are extraordinarily talented and perhaps don't have an idea, one of the areas that we work on is what we call backcasting..

I think a lot of this has to do with insight development, which has to happen before customer development.. And so, backcasting is, again, this idea that, the best entrepreneurs don't just respond to a future vision; they create a future vision.. They create the future literally out of nothing.. And that future, when you describe it today, 10 years out, might look plausible, improbable, and maybe even impossible.. And depending on that spectrum, you actually have to build a lot more.. So a great example of an entrepreneur who will espouse something that sounds impossible and seems to, time and time again, hit the nail is Elon Musk.. So he'll describe something that sounds insane, right, a rocket ship that goes up into the air, and then the fuel canisters will land back on earth.. And it's a private company.. Well, you would say, "That sounds crazy and rather impossible.. "Only governments can do that." And yet, he will give you the first principles of why it's possible..

Implausible might be Marc Andreessen when he's describing Netscape.. Back in the day, the internet was a bunch of text.. It looked like a terminal.. And he's basically creating a browser that makes the internet more accessible for all.. All of these innovations that describe something kind of far-out, those are founders who are building a completely new future.. And so, what do they have in common? Well, they have an insight, usually about an inflection point.. And an insight to me is an observation of something that is changing rapidly, and that inflection point usually describes something that's exponential, and it's something around an adoption, a technology shift, or a regulatory shift.. And that shift is creating something that has this exponential feature to it, which might mean people are suddenly changing their behavior and adopting something very suddenly.. Telemedicine today is a really good example of that.. And my partner, Mike Maples, has written quite a bit about backcasting, but we think that that is sort of the first ingredient for venture-backable, venture-scale business, is you have to be riding on this exponential curve, and you have to personally have an insight about that exponential curve that is non-consensus but right..

So, it is something not everyone agrees about, because if everyone already observed this exponential growth pattern or this thing that's about to happen, well then, game over; there's no room for a startup.. So what's your unique secret insight that you have about something that's about to change, that gives you the surface area of attack? So that to me is the backcasting and inflection points concept.. The second that you were asking about, yep, do you have a question? - Yeah, go ahead, go ahead.. 00:18:58,730 Go right ahead, sorry.. - Okay.. 00:19:02,760 The second piece is, this is where my class comes in, which is now that you have this insight and that you know what you're building, you have sort of a hypothesis around a product, the big question becomes, "What are you running towards?" And a lot of people, when they say, "I'm raising my seed investment," they're saying, "I need to get to product/market fit." And the problem with product/market fit is it's a really nebulous concept, and what everyone believes it means is traction.. But there's no map for how to get to traction.. So a lot of people believe that it's this customer development process, but we put a little bit more rigor around that.. So, what I believe product/market fit is is it's actually a misnomer, because most people believe product is a bag of features, market is sort of size of market that you do this weird exercise on where you say number of people who you can sell to times price, and that's your market.. In reality, product is more your value proposition, the promise that you're making to your customer of why the experience with your product is going to be an order of magnitude better than anything they would have expected..

And so, on the market side, it's actually an ecosystem, and it's your customer, it's the person who pays, it's your manufacturer, it's the distributor.. It's all of the different people and companies that need to buy into what you're doing in order for you to succeed, and what is your value proposition to all of those people? And then finally, the third leg of the stool is actually your business model.. How do you make money? And most people leave this to the last minute to answer, and I would say that's probably as important as your product, because if you don't think about pricing, if you don't think about how much people will pay or how they will pay for it, or how they wanna find your product, then you haven't actually thought about the totality of your product.. And so, we often say, it's those three things that have to fit together.. It's your value proposition, your ecosystem, and your business model.. When they lock together, that's product/market fit, and then you know the levers for growth.. - We could stop right there.. 00:21:38,410 That's really good, Ann, and I know that people watching and listening are wishing they could be in classroom with you like I get to do.. That was awesome.. Let's move ahead and talk about, speaking of Steve Blank, and we are thinking of him today..

He's having challenges out on the coast with his home.. Steve has meant so much to us at Stanford and STVP.. You worked with him early on when he became associated with us, and I've just been so pleased to be his, oh, I don't know, air cover or something, (Tom laughs) his sponsor here at Stanford.. It's been great, and so we're thinking of him today.. But it was his techniques with the lean startup methods that popularized this term "pivot." So let's talk about that as well, especially in the context of what we've been discussing so far.. Let's play a clip from 10 years ago when you talked about something called "the courage of pivoting." - We're looking for people 00:22:40,350 who have the courage to pivot if they have to, and this notion of pivoting is really important, because all the elements that I just described in a business model is a fulcrum by which you would pivot.. So it might be that your customer set was all wrong.. It might be that your product was all wrong.. It might be

that your manufacturing was wrong and that you need to bring that in-house.. All of these different elements of your business model are potential points of pivots..

And if you decide to make a pivot, it's not an easy decision to make.. - It's wild to think that 10 years ago, the word "pivot" 00:23:20,738 had something to do with the NBA and basketball.. (both laughing) To us geeks, it had to do with something called linear programming, which is a part of that.. But "pivot" has now become, oh my gosh, politicians, since they're in the news now this summer, they pivot too, (Tom laughs) and they use that word.. I heard it the other day, and I'm thinking, "Oh my gosh, that word." So let's get serious, though.. Why is it so hard to pivot? - Well, I think people think of pivot in a very casual way.. 00:23:54,967 They think of pivot as like, "Well, I changed my mind, so I'm pivoting," or "I'm pivoting because I failed, and I'm giving up." The truth of the matter is, the best kind of pivots really are, it's a move forward.. It's an aggressive stance; it's not a defensive stance.. And the way I thought, and this is part of the reason it's so painful.. The example of Lyft was that when they pivoted from Zimride to Lyft, it was not an easy decision..

It might in retrospect seem like an obvious decision.. But for a founder, you're all in on this idea, right? You're all in on idea number one.. It's not just an idea that is supposed to get you somewhere else.. You are giving up night and weekends.. You're giving up birthday parties that you could have gone to, date night with your spouse, to work on this thing, and it's like, thousands of lines of code and relationships that you've built up, and all of a sudden, you have to say to yourself, on one hand, "This is not what I said it was going to be.. It is not the next billion-dollar idea.. It will not get me to the finish line, and yet, we have learned something that we actually have conviction on where we are willing to scrap this, scrap all of the blood, sweat, and tears, to move in a totally new direction.. And so it's partially the recognition that we were wrong, which I think is really hard to do, and it requires a certain level of humility, and then the second is that even if this thing was kind of working, that we're willing to give it up to move whole hog in this new direction.. And so, like with Lyft, they actually had traction on their platform.. They had millions of dollars of revenue that they had to say, "You know what, "it's not gonna get us to billions of dollars of revenue..

"And so, we are willing to shut that down "to move aggressively into something "that we kind of believe is the thing." - Well, wow, I would love to talk more about pivoting, 00:26:29,360 but I am watching the time.. I had a chance to experience that early in my career.. It was early during the forming of Symantec Corporation, and we were funded as an AI company.. In other words, semantics, like natural language processing, but then we pivoted to being an antivirus company.. We didn't call it "pivoting," but it was all the things you just described.. So this is not a new phenomenon, especially in tech entrepreneurship and innovation, but given the speed of everything now, we had a couple of years to pivot, not a couple months.. - Yeah, it's incredible.. 00:27:07,590 - Yeah, so I look back.. 00:27:09,670 All right, let's talk about All Raise.. Can we do that, and then we'll do questions..

- Yes.. 00:27:12,816 - Let's talk a little bit about All Raise.. 00:27:13,649 What is it? - So All Raise is an initiative that started a few years ago 00:27:24,100 really with Aileen Lee from Cowboy Ventures when she sent out an email to a bunch of female investors saying, "Hey, I'm just tired of all of this," it was sort of in the middle of the #MeToo movement, "and feel like we can actually do some things "to create change, and create pressure for change, too," not only for funders, because we're seeing it within investors, but really for founders as well.. So a bunch of us got together for dinner, and then out of that dinner were a bunch of initiatives that started up.. At first, I was working on a dinner series to encourage operators to become VCs.. And so I would gather a bunch of operators who were great candidates for being venture capitalists and then help them negotiate as they were going through their interview process with venture capital firms, and then get them into these positions.. So we had a number of folks who collaborated and then also were giving each other data so that they understood what the negotiation process would look like, and it helped sort of grease the wheels on that front.. I later joined another initiative called Founders for Change where we were getting founders to talk about the fact that they wanted change not only within their management team, but also within their boardrooms and also on their cap table.. And I believe that that initiative was really, it was led by Jenny Lefcourt from Freestyle Capital.. I joined it, and the thing that I thought was really important about that was when really hot companies would go back to venture capital firms and say, "I'm not gonna take capital from you, "in fact, I'm not gonna meet you for a pitch meeting, "because your partnership doesn't represent "the partnership that I want to be associated with." That actually really moved the needle, created fear..

There was a New York Times article that talked about this, and we realized that it was going to become a movement.. And what we didn't want was it just to be sort of fear-oriented, but from a capitalist standpoint, one I loved was, as founders talked about it, the VC firms realized that in order to have the best deal float, in order to have the access to the best founders, their decision process needed to change, and the people around the table needed to change.. And so, we started to see a significant movement amongst many of the VC firms that were all-male to then include new general partners who were women.. We believe that this is just a standpoint, and obviously, diversity is not just gender, but many other things.. And so, it's an initiative that's really close to my heart, because I believe that by finding diverse voices, a lot of what we think about innovation, the way we think about innovation can change from being disruption within an industry to how do you create abundance for the world.. - Well, thanks.. 00:30:53,580 Ann, we have some amazing questions that have been asked, and I'd like to go to those right away.. Is that all right with you? Ann Yeah, please.. 00:30:58,877 - All right, cool.. 00:31:00,450 All right, there's a number of them we touched on earlier, evidently, with these issues of principles and values and ethics, which of course makes you and I very happy, 'cause that's what we're emphasizing these last couple years..

So let's talk about this.. Lemme grab a couple of 'em, and feel free to combine, 'cause there's a couple that are very close.. One is, "Some innovations lead to increases in inequity.. "How can and should aspiring entrepreneurs "design radical innovations that improve the lives "of the most vulnerable in our society?" And I'd say, that is a good one to combine with, "Ventures use many performance metrics linked to finances.. "What KPIs or metrics should entrepreneurs use "to make ethics a priority? I mean, one's the aspiration, and then one's the, "Well, okay, how are we gonna take action?" - Yeah, I love these questions, 'cause I think 00:31:55,360 these are ones that we are actually grappling with today, and I think it's ones that I don't have a clean answer for.. I wish I did.. But one of the things that I do believe, I do think that innovation is not opposing forces with creating more opportunity for everyone.. And so, the notion of abundance is something that can be tied to technology.. It does not just need to leave people behind.. And you see this actually in developing countries, the ways in which mobile phones has unleashed the ability for almost everyone to participate in the economy..

I also believe that by providing knowledge to a vast majority of the world, you actually start to create opportunities for equality.. And so, I think that they aren't opposing forces.. Part of what we need is we actually need more voices around the table, and this is why I'm very passionate about diversity for funders and founders.. The reason you need it for funders is because if a founder with a different idea comes to an investor, the funder actually needs to recognize that, and they need to be able to have empathy for these ideas and to believe and know that they're large ideas.. We saw this actually with the gender divide.. Pinterest, when it was first fundraising, met with a lot of opposition, because a lot of the partners at these VC firms would say, "Well, I have to go home and ask my wife." Well, the wife doesn't have a decision vote at the partnership table, so that doesn't seem like the right way to go about it.. You need to have a woman who understands that viewpoint at the table.. When you look at the really vastly changing demographics of the United States alone, and the way in which the wallet will change rapidly in the future, you know that the voices at the table need to change for innovation.. So I would say that's the number-one thing I would think about.. The number-two thing when you talk about performance metrics linked to finances, I completely agree with this, and this is one of the things that I really struggle with, because especially when you go public and you have people who are really trading on a short-term timeframe, all they're thinking about is whether or not you're gonna be able to hit your mark in the next quarter..

And so, it completely takes out this notion of long-term development and where do you invest.. It also only rewards efficiency, which I think is at odds with society in some level.. So, the example I always point to on this basis is, when I was a kid, I used to go help out my grandmother at her office supplies store in Kanazawa, Japan.. And this is a relatively small town, not a huge town, but they had someone who worked for their storefront for many years.. I think she'd worked there for 30 years.. And was this employee the very best employee, the most efficient person who could work for the company? Certainly not, certainly not.. They could have hired many more young people who would have been cheaper, probably faster, could have done a lot more things, but my grandmother had incredible loyalty to this woman.. She knew her family situation.. She knew she needed the income, and she knew that this person was very hardworking.. And so, my grandmother was absolutely adamant that she keep this one employee..

And I think about that example a lot, because corporate America is not set up for that.. And so, how do you think about societal impact of keeping an additional employee? How do you think about loyalty? What are the right ways to think about developing a long-term view of a company? Eric Ries is actually working on a lot of this with the Long-Term Stock Exchange to really rethink the short-termism of public company trading.. - Yeah, and we've got a project underway 00:36:46,090 regarding what are some potential ethical KPI mechanism or KPIs period that could be used to track progress.. So we're looking forward to working on that, and I'm sure a lot of great stuff will be coming out.. You've been addressing this question, but I'm gonna combine it with another one.. It says, "As an educator," which you are, "as well as an influencer and venture capitalist, "what's your vision for the next generation "of innovators and entrepreneurs?" So that's kind of a meta-topic that you've been touching on, but I'd like to combine it with this one.. "What do you consider as good teamwork "and effective knowledge sharing? "Are there lessons on these topics "that you want all founders to internalize?" Because that is a theme across all STVP.. I know you've embraced it ever since you were a teaching assistant (Tom laughs) with us back during your PhD years, about the notion of teamwork and entrepreneurship, and it's not a "solo sport," as we like to say.. It is a team sport.. So how does that tie? Why is teamwork so important to the vision that you've been talking about? - Yeah, I have seen this time and time again, which is, 00:38:00,290 the beauty of teamwork is you actually magnify other people..

And so, people become better, and the work actually improves when you work in high-performing teams.. And the thing that I think is the most important to think through when you are in a high-performance team, I think the org group at MSNE has studied this quite a bit, but a lot of it has to do with giving people agency, and I found this true within Floodgate.. We have a very small team.. To really large organizations, JPL has always been seen as one of these really great organizations that runs really fast and is able to make great decisions.. NASA, all of these high-tech government organizations that run for 20, 30 years, these projects, how do they do it? Well, it turns out that you give these groups a lot of agency.. They know what the objective is, and you give them the choice of how to do it.. And so, they aren't thinking about, "What are the blockers," but, "How do I remove the blockers?" The way we talk about it at Floodgate, we say "Truth over tribalism." What does that mean to me? In every decision, I'm seeking out the truth, and I'm seeking out the right answer, and I know, because of my experience, that truth does not exist based on hierarchy.. So just because someone's the oldest person in the room or has the biggest title or the fanciest degree, that doesn't mean they have truth.. In fact, it might be the youngest person in the room.. It might be the person who's closest to the data..

It might be the person who's actually operated something in the field.. Those are the people who might actually have the right answer.. And so, if you operate based on that, you would want to find that person who has the right answer instead of saying, "I have it because of who I am." And I found that the best operating teams operate that way.. They have this fluidity to it that I think is really important.. And that comes back to this whole concept of knowledge management and knowledge sharing, which is that you want to be curious.. And so, there's this whole concept of the "idea maze" that Balaji, who used to work at Andreessen Horowitz, he's written about this in the past.. People who are great entrepreneurs traverse this idea maze.. They know where the trap doors are.. They know the hidden tunnels.. They know the history of what's happened in their space, and they can tell you more about the problems and solutions that have happened already and could happen in the future, because they've thought about it..

So knowledge management and teams and how they operate and sharing information, especially in a world like where we live right now with COVID, becomes tremendously important.. So it's a space that I spent a lot of time thinking about.. I think there will be a huge business built on enabling this in a more seamless manner.. I don't think it's easy to do today.. How do you find out what is in Tom's brain, or how do you figure out the expert on topic Y within your company or I the world? It is very, very hard.. And so, I do believe that there is room to grow in this space.. I think there's big companies to be built, and when those companies are built, teams will operate better.. - Well, come back, and let's do another ETL 00:42:19,240 and talk just about that.. But I wanna finish on this, and I apologize to everybody.. We have so many great questions here, but I gotta take advantage of this..

You know, you mentioned investment companies that would support, that you like to support a created future that you'd wanna live in.. I like the way you phrased that, and I've heard you say that many times.. But you're a Stanford and Yale grad.. You're on the board of trustees of Yale right now, and you've been involved in all of the incredible decisions going on reacting to these events that have transpired here in 2020.. You are so kind to give us so much of your time to teach actually in our classrooms or online with us.. So since you're investing so much time here in education, what's the future of higher ed? All in a few minutes, (Tom laughs) but you're looking to shape for next generation, and now, here's why I wanna ask you.. You're also an incredible parent.. You and your husband are just amazing for your three children.. We get to know them because you always invite us and the students over for dinner.. I miss those..

So, what do you want your kids to see when they grow up and go to college? - Yeah, and so, I have one kid who's eight years old 00:43:40,020 and dreams of being a scientist someday, and one of the things that I'm still bullish on, and part of the reason I spend so much time at these institutions of higher ed, is that I think they are embattled, and I think a lot of people have lost trust in these institutions, and yet, when you peel away what they do, there's absolute, incredible research that happens that you can't put money on, right? So you can't put a price tag on the dedication of some of these scientists, the work that they do, or the research that they complete, and some of it is not even in science, right? It's in the liberal arts.. And you have to ask the question, "Do these things have value?" And I'm going to say, "A thousand times, yes." And without the type of higher ed that we have, without a research institution that doesn't care about commercialization, that doesn't care about getting rich, I know so many professors at Stanford and at Yale who, if they spent their time at a hedge fund or if they spent their time commercializing their research and trying to make an extra buck, they could be gazillionaires, right? And yet, instead, they choose to try to make a dent in society and in the knowledge space.. And so, that's why I spend so much time in higher ed, because I do believe that there's a space for that kind of elite research that we should be so privileged to provide money for that.. But then when we turn to education, I do believe that there's lots of different ways in which you can be educated, and I don't think that higher ed, the four-year college model is the only way.. I believe it is one way, and it is a very important way in which certain students can be educated, but the truth of the matter is that there's lots of different ways in which people can make a dent in society, and it's not just through scientific research or becoming an engineer or becoming a historian.. There are lots of other ways in which people can create real businesses or real services.. I think about actually my daughter who has really, over COVID, taken up being a chef.. So she loves cooking, and she loves all of the elements of what that might mean.. And when I look at the skillsets she's trying to gain there, and whether or not that's meaningful in the world, I think it is.. So I think this worldview that there's only one way to accelerate your career and your life through a four-year institution is broken..

And so, I wanna be a part of that solution.. I don't think it means tearing down these institutions, because there's a place for that, but I do think it's building up opportunities for everyone and for the different, I don't know, superpowers that people have.. Making those things come alive, I think that's our obligation to our future generations.. (dramatic synth music)..