[SQUEAKING] [RUSTLING] [CLICKING]

BILL AULET: All right. Well, thank you, Hanna, for having me. Why am I here on Martin Luther King Day? I'll tell you-- and I'll just make it quick-- is SUD is very close to my family. I got to be careful here.

AUDIENCE: We're not leaving. Don't worry.

BILL AULET: SUD is very close to my family-- above, below, next to me. And I've seen lots of people. And anything that I can do to help in this, you can-- the line between being super high achieving and being a burden on society is extraordinarily thin. And I have seen that extraordinarily up close. So what you're doing is beyond important.

So what I want to do is I have three things that I just want to talk about. 1, I just want to go through what is good entrepreneurship. But then the thing that really I thought a lot more is I don't want to just do what you can see on videos and the like. What I want to do is talk about what I'm thinking about right now. That is the 800-pound gorilla in the room.

And then lastly, I want to leave you with some hope of what you're doing can make a huge difference. So with that, where's the clock? Where's the clock? I need a clock. Is there no clock in the room?

AUDIENCE: We'll be your clock.

BILL AULET: All right. So every 20 minutes-- so what time is it now? Yeah, see. So for those of you who don't know, I'm Irish. And when God created time, she created a lot of it, as far as we're concerned. So I'll run over. All right. So let's just talk about first-- what I understand is your program, is you're a five year program. You're now in the middle of your second year. You have a cohort of 50 to 30. Is that right? How many of you are in the cohort? OK, so you're like the entrepreneurs. How many of you are in the government side? I know two of you are. OK. What are the rest of you? You're not lawyers, are you?

[LAUGHTER]

You're not setting me up?

AUDIENCE: We have coaches.

BILL AULET: Coaches? Great.

AUDIENCE: Yeah, we also have experts from the industry.

BILL AULET: Experts from the industry? OK. So you've got a support structure. You've got the community. Good, all right. So let me just go through what-- this is a little biased-- is kind of what I perceive as it today. And you probably heard this before. But what is entrepreneurship?

We've all got like-- this is the school of engineering. And the first rule of engineering is define your terms before you start to solve a problem. And you'll see people start solving a problem. And they'll say, oh, I'm an entrepreneur. What do they mean? What is an entrepreneur? Let's start with it.

The great basketball coach, John Wooden, people were so excited in Europe to come see him. How many of you are from Europe? Good. Does this still exist? Do you still have that thing called the Euro too? Or is it--

AUDIENCE: [INAUDIBLE]

BILL AULET: Yeah, really? That was a joke. That was sarcasm.

[LAUGHTER]

You don't need to respond to these things. But when he went over there-- and they were very interested to hear from John Wooden. All the coaches gathered in Spain. And they sat around. They were waiting for John Wooden. And he came in. And what he explained to them was, to be really good at basketball, you have to have very good sneakers.

And he explained to them what good sneakers were. And then he said, and you have to tie your sneakers the right way. And you have to put on the socks the right way. The point is, greatness comes from fundamentals, building up fundamentals. That's the point of that.

And so when we talk about entrepreneurship, what is an entrepreneur? An entrepreneur is not a-- is someone, a team, usually, almost always, that comes in, and there's nothing there, and they create a new organization that never existed before. And that organization is economically sustainable. It's not a product. It's not a feature. It's an organization that is economically sustainable, that will continue on without requiring charity from anyone or continual donations. This is an exercise in market dynamics.

So what do you have to do to create a new organization? You have to create a replicable product/service that creates value for someone, and then get paid by somebody else for that product that creates value for someone. And you have to get paid for it-- that is, extract some rent that exceeds the cost of your organization. And that is what an entrepreneur does.

That's really important to understand because, if you do that, you can do enormously powerful things, creating a new organization that will continually create value for people through products, or services, or whatever, and get paid for that, and continue on without being dependent on outside sources.

All right. So once you come up with that, you have two types of entrepreneurship. You have small/medium enterprise. By that definition, the dentist I went to in Cambridge is an entrepreneur. And it's absolutely true. They create a service that we go in, we get our teeth cleaned, and then we pay them for that service gladly. And they do that in a repeatable way. And so they have a dental practice.

You can think of restaurants, dry cleaners, IT service companies. All these people are what we call SME entrepreneurs. That is a really good thing for the economy. But what we're going to talk about-- and it's important to distinguish-- is innovation-driven entrepreneurship, which is what we're going to talk about over here. This is good, but this is a system. By the way, how many of you are engineers? Clearly not enough.

That's all right. I'm a fake engineer, too. I got my engineering degree from an arts and crafts school down the street called Harvard, which they find hysterically funny here. So I can fake it. If I can fake it, you can fake it. All right? So the inertia of this system, of an SME, is very low inertia.

By that, I mean, if I'm a dentist and things are going well, and I think I can get more revenue, I can add another chair. I can hire another assistant. Maybe I get a junior dentist in there. And my revenue will trend up. And if it doesn't work, I'll know that really quickly.

Think of a restaurant, probably a better example. Business is going well. I add another table. I get some more real estate. Revenue will go up. The delta t-- that is, the time between when I try an experiment to see whether it works or not is very, very short. My growth here will be linear. And it will be capped at some point because I only have a local market. And essentially, this is a service business. It's a body shop. I'm throwing people at it to solve a problem, to create value.

But the good news is, because these experiments are-- the results are clear very quickly, I don't have to waste a lot of money. If it doesn't work, I pull it back. If it works, I continue to invest. And so this system over here is actually very good for economy. That's called geographically-distributed jobs, non-tradable jobs.

And if you are one of these, you basically own your own business. You're in control of your business. And these things are quite good. They're very good for the economy. And governments, by the way, love these things because-- I'm looking at you two, as government. I don't know where the rest of the government is. It's probably you five right there because you all sit together, right? Are you government?

AUDIENCE: Yes.

BILL AULET: But anyway, these are what governments love because, if you put money into it, you will see results very, very quickly. The challenge is these things called innovation-driven are systems that have more inertia and will take more time. And those systems will go through this dip here before they come up.

And what that means is I have an idea. I'm Erdin. I have a hypothesis that I think is true. And if I test it, it's not like putting another table in a restaurant or getting another and seeing the results. It's going to take me time to develop that. It's going to take me time to educate the market, invest in the development, and finally have it come out.

There is going to be a period of time between when I do that and see the results that is much, much longer than there. And then I'm going to have to put resources into it. I'll have to go without paying myself. I'll have to maybe raise money. I'll have to take assets that I would deploy otherwise. But this is what we call the innovation and product development debt.

So the delta t-- that is, the inertia of the system-- is longer. But if I get it right here, if I get it right, I get exponential growth that is essentially uncapped compared to this. I can take off. I can make money while I am sleeping, pillow money. In other words, if I come up with a great product, I can be asleep, and people are downloading the bits, and I'm doing good for the world.

My factory's shipping products. I'm asleep. But they know what they want. I've got this thing down. And we are producing value. And that is not just for a local market. That's for a super regional or global market. And this is what fundamentally changes regions, changes economy. This is what stabilizes them. This is what solves the world's problems.

I'm not against SMEs at all. They're great. This is what we're focused on. So again, you've got to know what you're focused on. This is what we're talking about. This is what I believe is going to be transformative to SUDs. So a lot of this is about how do we have impact on the world coming up with new ideas. So innovation is something that makes money. By the way, have you already seen this? No? Yes? Yes.

AUDIENCE: [INAUDIBLE]

BILL AULET: OK. Let me go quick. Innovation makes you money. It is not the same thing as invention. Invention costs you money. And people get that mixed up. They say, I have a patent. I have an idea. I have a process. Good for you. You could go over the Technology Licensing Office. And they've got millions of patents. You know how many are useful? Less than 1%, less than 1%.

The patent is kind of fool's gold, unless you can figure out how to get someone to commercialize it, how to get someone to figure out who is the customer that will benefit from this technological breakthrough. And this is-- Ed Roberts came up with this originally. But it was working with Bengt Holmström, who is over in that building right over there. And he won a Nobel Prize. And he gives a talk for us called "Is disruptive technology overrated? In praise of imitation."

And he, again, has a Nobel Prize. So I will listen to him. He says over 90% of the value in the world is created by imitation, not invention. The new ideas, when you think about this-- and I go through this quickly. And I'm sure there's a video out there someplace.

The most innovative company of the past few decades has been, without a doubt, Apple. And they have a very standard policy of taking other people's invention and stealing it or, as we like to say, laterally innovating it. If you want to feel comfortable, call it lateral innovation. If we want to call a spade a shovel, it's stealing it.

But stealing is not a-- in the Western minds of what we do in academia, we see stealing as bad. But when you look at what Apple has done, the Windows icon mouse pointer did not come from Apple. It came very explicitly from Xerox PARC. Xerox PARC was unable to commercialize the Windows icon mouse pointer technology, just as they were unable to commercialize the ethernet technology and the laser printer technology. And they basically were sold in a fire sale. They were not innovators at all.

You just see this over and over again at Apple. Steve Jobs said, good artists create, great artists steal, which is really kind of amusing because even that quote was said by Pablo Picasso. So he's laterally innovating his motivational quotes, not just the products that he does. Look it up. Do we have anyone here from Spain? Yes, true?

AUDIENCE: Yup.

BILL AULET: Yeah. But if you ask, if you walk out in the street and say, who said "Good artists create, great artists steal," 99% of the people say Steve Jobs. I love Steve Jobs. And you say, well, that's Apple. No, it's everybody. Let's take Facebook. Do you think Facebook was an original idea? If you do, you haven't seen Myspace. You haven't seen Friendster.

If you think Google was an original idea, you haven't seen, like, everything else that was out there before that. And you're like, but it was the advertising model. Exactly. It was the advertising model. And guess who invented the advertising model? It was Overture. It was not Larry or Sergey.

And for those of you who've been around a while, this is the Microsoft model. Excel as such a bad rip off of Lotus 1-2-3. Word is such a bad ripoff of WordPerfect. But they figured out how to commercialize it, and bring it forward, and put it into a suite, and make it accessible to everyone.

And by the way, I gave this talk and people were like, oh, this is interesting. And then Kai-Fu Lee gave a speech after. You know who Kai-Fu Lee is? He's been the head of Google Labs. And what was the other one? Kai-Fu Lee?

AUDIENCE: I don't know, but I had a question.

BILL AULET: Oh, yes? Wait, let me just finish the Kai-Fu Lee thing because I won't remember. He was head of Microsoft Research, Google Research. He's like the most recognized thought leader in China. Afterwards he said, you guys in the West are so freaking obsessed with inventing stuff. Like, we just look at what works. And then we commercialize it in China.

AUDIENCE: Yes.

BILL AULET: And you can say, oh, that's not terrible. That's smart, ladies and gentlemen. Yes?

AUDIENCE: What are the IP issues around stealing-- or rather--

BILL AULET: What are the IP issues around that? Well, first of all, a patent, you have to disclose everything you know about a patent to the Patent Office. And then they have to publish that to society. And you only have 20 years from when you did that to when it becomes obsolete.

And by the way, every patent becomes available. You can find a way around most of them. And so I'm not saying you shouldn't go out and get patents. At my company, we got patents. But you don't win in the Patent Office. You win in the marketplace. You don't win in the Patent Office. You win in the marketplace.

Should you have patents? Yeah, yeah. Go for it. But don't be confused. Can you name a company that's succeeded by doing patents? I can, Qualcomm and Lemelson. And you know what you are when you do that? You're a goddamn patent troll. That's what you do. You hire a bunch of lawyers. And you go out and try to get money from other people. I'm sorry, I don't like lawyers. Maybe you do.

[LAUGHTER]

That's not the way I want to lead my life, as being a patent troll. Orlando, have I--

AUDIENCE: Yes, sir.

BILL AULET: No, don't call me sir. That makes me very nervous. Have I answered your question?

AUDIENCE: Yeah. I'm very nervous.

BILL AULET: Yeah, you should. But you're not going to win by being nervous about it. Dharmesh Shah said stealthy is unhealthy. You've got to get out there. And you've got to figure out what you think is right is wrong. I guarantee you, there's no one in this room and ever has been a business plan that was right from the word go.

You've got to get it out there. And you've got to figure out what's right, what's wrong, and fix it over time. And you don't get that by sitting in your office, even if you're Dean Kamen at Segway, who everybody said was a genius. He can do it. He's in stealth mode for it. Do you remember it? Do you know what it was? It was Segway. And when it came out, it was on the cover of *Time* magazine. And you know what Segway is? That weird thing people ride around? Yeah, that was supposed to be the biggest thing ever. Are you an IP lawyer, Orlando?

[LAUGHTER]

Don't worry, it gets better. All right. But it's not just that you-- so this cannot be zero. You have to have technical capability in your organization. But more importantly, you have to figure out how to commercialize it. And we as a society vastly overindex for this and vastly underrate for this. But you can say, it's OK, if this is zero, you get no innovation. Correct? Correct. If you can't figure out an invention or laterally innovate someone else's, you've got no invention. You've got no innovation. Yes?

AUDIENCE: I have a question.

BILL AULET: Are you from the government?

AUDIENCE: I'm not. I've seen what the government does, so bear with me. No, so I was told--

BILL AULET: But if you are should perform a wallet-ectomy before the day is up, all right?

AUDIENCE: I was told--

BILL AULET: Somebody got the joke.

AUDIENCE: --that Apple and Samsung have gotten to the point with the patents that now they're patenting, like, the corners of the phones because they can't really--

BILL AULET: Yeah. I mean, basically, patent IP law-- look--

AUDIENCE: Just keep changing the patents--

BILL AULET: What you do-- and I don't want this to become an IP thing. Let me just give you my take on it. Yeah, we had a nasty IP lawyer working for our company. But they're B-52 bombers. If you have B-52 bombers, and I don't, and you bomb them out, I'm like, oh my God, all right, I'll settle right now, whatever you want. But if you have B-52 bombers and you wheel them out and I have B-52 bombers, I wheel mine out and you go, hey, you want to have a fight? We'll both kill each other. Does that make sense? No, that doesn't. Let's put them away. And let's negotiate here. Let's figure out.

And basically, at that point, you trade patents one for one, which is annoying, but that's the way it usually is. So basically, they're in this stasis of trying to keep everybody else out. And then Samsung and Apple will control the telecom IP market and use that as a moat to keep everybody else out. Yeah. Yeah, because they'll have 10,000 patents. And you might have one brilliant patent. But it doesn't matter. Patents generally trade one for one. It's very depressing if you want to join Orlando afterwards for some therapy, we;ve--

AUDIENCE: I was so hopeful. [INAUDIBLE]

BILL AULET: I'm sorry, ma'am. This is the real world. So invention and commercialization, you need both. You'd say, well, let's load up on invention. And let's load up on commercialization. And we'll kick everybody's ass. Well, it turns out that's not such a good strategy. At IBM, we had the most invention by far in the computer industry in the Thomas Watson Research Center. We had the most commercialization by far of anyone. And yet, we still lost the computer industry.

There's a very good movie for you, very depressing movie for me, called *Silicon Cowboys,* on Netflix. Have you seen it? Yeah, I'm the idiot in it because I worked at IBM. And we had the market, the computer market. And we lost it to these people from Texas who had inferior technology, inferior commercialization.

But you know what they had? Really fast clock speed. For us to get an idea-- the market's moving. To get that idea all the way over here went through like 10 layers of management and just all kinds of painful meetings. And they used to have memos. Do you know what memos are? Yeah, it's like print out an email and carry it to some idiot. And then it's not productive.

And so this would literally take like a year and a half to get it over here. And then you'd be in a room with 10 people who are trying to explain personal computers to people who wanted to know, but didn't understand it, with 10 other people who only understood mainframes and were concerned about their jobs.

And so it was very hard to get the market needs over to here. And then when they finally got it, and it became so obvious, it still took them a year to get something into the marketplace because they already had a product plan, which is amazing. I don't think anyone in this room could understand. IBM owned the market for computers, owned the market. And it lost the market because it did not have the ability to have fast clock speed. It could not iterate on new ideas quickly when it saw them in the marketplace. And that's why it died. It just wasn't fast-moving.

And this is what Thomas Edison said that was very insightful. Nikola Tesla was much smarter than Thomas Edison. But Thomas Edison was an innovator, whereas Nikola Tesla was an inventor. And Edison said, "I consider the measure of innovation the number of times I can iterate on a new idea in the first 24 hours when I have it." And so that's a brilliant way to think about it.

So this is not a two-dimensional problem, in that you need invention and commercialization. It's actually a three-dimensional problem, where you need invention, and commercialization, and you need them connected to each other. And that connective tissue has to have blood flowing back and forth very rapidly. And then you can do amazing things. Then you can do amazing things.

But the problem is, in large organizations, which I'm not-- there's going to be another book coming out about that. Entrepreneurship is very hard. So today, we don't talk about entrepreneurship as strictly startups. Although, that's the focus of this program. We talk about creating antifragile humans. And what does antifragile mean? There's a whole speaker series on this. And I recommend it to you. Yes?

AUDIENCE: 20 minutes.

BILL AULET: 20 minutes? All right. Let me go to the second topic. No, let me try to wrap up here. So anti-fragility means most of what we're taught in business is how to mitigate risk, how to optimize systems, how to create more profitability out of them. That's all management. That's time and motion studies. By the way, thank you, Hannah. Give me five minutes, and then tell me five minutes.

That makes systems fragile, ladies and gentlemen. If you saw during COVID, when people who had supply chain management-- Six Sigma, financial leverage-- when they got hit, those things just imploded because the assumption in this is the inputs stay the same. That's a really, really bad assumption. That's a horrible assumption in today's world because the inputs are constantly changing.

The world will never be as slow as it is today. You're like, no, this is crazy. We've got all this stuff going on. We've got Ukraine. We've got Hamas. Just think back a year ago when you thought, it can't get any crazier, a year before that, when you thought it couldn't get any crazier.

The world is moving at a faster and faster pace, not just because of technology, but increased population, increased connectivity. Without getting too dark, if you think that's the last pandemic we're going to have in your lifetime, you're crazy. The math is very compelling. It's going to be another one. And it's going to be worse than that. And the question isn't is it going to happen, is it going to be worse, is it going to happen sooner. The question is, how are we going to deal with it?

So you have to build a system that can have some adaptability to inputs. And people will say, that's a robust system. No, that's a neutral condition. If I just said, COVID happened, I didn't want it. We're going to keep achieving our goals no matter what COVID does, blah, blah, blah, we just keep going, that ignores the new reality.

What you have to be is-- if this is the negative condition in change, this is the neutral condition, you've got to be the positive condition. The positive condition is, in change, there's opportunity. We are built for change. We don't survive change. We thrive in change. And this is a mindset, skill-set, and way of operating that is exactly analogous to being an entrepreneur, exactly the same thing-- a mindset, a skill-set, and a way of operating.

And that's what we want amongst our people, is how to be antifragile humans, antifragile teams, antifragile organizations, because there is no way you can predict the future. There is no way you could predict the future. You couldn't have predicted Ukraine. You couldn't predicted Hamas. You couldn't predicted the pandemic.

All this stuff happening, it's just constant. How do you deal with that? And so you want people who get better in the face of change. And those are the people who are going to be the leaders of tomorrow. Does that mean management will go away? No. When you recognize a situation that has stasis to it, you will use management techniques.

But as soon as you recognize a situation doesn't have stasis-- you're in the face of change-- you need to use those entrepreneurial mindset, skill-set, and way of operating. And that's what we need-- ambidextrous leaders, not single-handed leaders.

These are all things that I think you can get off it. Entrepreneurship is not an individual sport. Social network has done more damage to entrepreneurship. Every day Elon Musk is in the news, it does enormous damage to entrepreneurship. That is not entrepreneurship, ladies and gentlemen. That is some weird shit. I don't know what it is.

[LAUGHTER]

The research would tell you that is not what it is. Entrepreneurship is a team sport of collaboration, not an individual sport. It's not about how smart you are. It's about how determined, how committed, how obsessed you are with solving a problem, not a technology.

The other day, someone asked-- the last question, they said, in one sentence, tell them what makes a good entrepreneur from a bad entrepreneur. Good entrepreneurs are obsessed with solving a problem. And bad entrepreneurs are obsessed with their technology and their product.

If you obsess about your technology and your product, your odds of success are much lower. If you obsess about solving a customer problem, you will be a much more successful one. And so it's not about trying to be everything. It's not an intelligence test. It's about understanding-- I am really committed to solving that problem. It's not nature. It's nurture.

We can teach entrepreneurship. There's no gene. It's not about I love risk. This is not a test of whether you're an entrepreneur. This is a test of whether you understand math or not. If you think you go to a thing and pull it, and I'm lucky, I'm going to be an entrepreneur, you're an idiot.

The math is relentless. So what do you do? You have to figure out those situations where you have an advantage, you have an insight, where the odds are in your favor that the risk/reward is there. In other words, there's no place where there's no risk. We need to teach people how to take informed risk. And then when you have that informed risk, our approach to this one is don't take risk anyplace else. De-risk everything else. Just bet on where you have an advantage.

It's not about charisma. That's ridiculous. If you sell products based on charisma, and they wake up the next morning-- if I sold this to [INAUDIBLE] because I whipped him in the reality distortion zone, and he bought this thing, and he woke up tomorrow, and he paid me $100 for it-- he woke up tomorrow and goes this is so great. I've got to order five more of these. He goes on Amazon. And he finds out, wait, I can get exactly the same product for $5. I just got $95.

But you know what? That's the stupidest thing you could ever do because, guess what? You have an angry, unhappy customer now. And $95 is nothing compared to having an angry-- the best salesperson you can ever get is your existing customer. So if you're selling on charisma, you're a fool. You've got to sell on authentic value because I want to motivate him to go sell to him, to him, to him, to him and him because that's how you become successful.

So it's not about charisma. It's not about being lucky. You've got to anticipate where the opportunities are. You think entrepreneurs aren't disciplined? You haven't been an entrepreneur. I've been in big companies at IBM where they thought, oh my God, we're so disciplined. Compared to what I did when I was in a startup. It isn't even close.

Like in a startup, you've got to figure out what's important. And you cannot be distracted. It's not about what clothes people wear, what they say, or whatever. Either they get the job done or they don't. And if you don't get the job done, you don't make payroll. And guess what happens when you don't make payroll? You're out of business.

Whereas at IBM, you can play all kinds of games. Yeah, yeah, yeah. I'm a meeting lizard. Let me play politics because payroll comes every month or twice a month. But in your startup, there's no guarantees. So entrepreneurs are very-- entrepreneurs lose all the time. I don't know, 10% of the people. Not true. I just gave the study to Hannah you can go through.

I'll show you this in a second. The odds are much, much better than what you think, much, much better. If you learn the rules of the game, like David learned the rules of the game and changed the rules of the game on Goliath, your odds of winning go up dramatically. And it's not about your original idea.

The original idea is wrong. It is wrong, wrong, wrong. It's about how do you figure out who your customer is, and execute against that, and then build a great team. Yes, you need an idea. But then, as Matt Marx said, you do this thing called switchback. And do you have a disciplined process to do that? Do you have a customer in mind that you can get excited about? And have you built a team?

Entrepreneurship is not a science. There's no algorithm. There will never be any algorithm. I'll show you that in a second. But we can teach it. But you can't teach it as a science. You can't teach it even really, I think, as an art. It has to be taught as a craft. And it needs to be taught in an apprenticeship model.

And that apprenticeship model needs to be with master craftsmen who share those first principles and you're all on the same page. So it can be done. We do it through the mindset-- that is, if all the fish are swimming that way, do you get excited about it? You don't have to do it every time. But that's the mindset, the spirit of a pirate. It's more fun to be a pirate than to join the Navy.

You don't do it all the time. But when you do, you better be disciplined. But you've got to love the game. And you've got to do it for ethical reasons, not to make money. If you do it to make money, you will not last. That is just not what entrepreneurship is about. That's called profiteering. So you've got to build this sustainable organization.

So we talk about the mindset. But then you need the skill-set. I'll come back to this in a second. And we have worked really hard about building up an ecumenical toolbox, not something that we invented. We went to laterally innovate every single thing if we can. But then we're going to pull it together. We're going to test what works and what doesn't work. And we're not trying to build a consulting firm. We're trying to build a serious body of knowledge about entrepreneurship.

And that has not been done, because you can make a-- do you mind if I swear? Or should I not swear? You can make-- I'm sorry. I already have-- a shit-ton money by doing these things and setting up a consulting business. That's not what academic institutions should be doing. They should be building a body of knowledge to create more entrepreneurs in the world, better entrepreneurs, and connected. And that's why academic institutions need to play it.

So you know the 24 steps. This integrates design thinking. It becomes like Simon Sinek. It integrates customer-centered design from Procter & Gamble. We'll literally innovate anything if it works. If it doesn't work, we ain't laterally innovating it. But then we integrate them together and put them in a sequence so that you know what to do when.

And that's what this is all about. I won't review it. I'll just talk to you about does it work or not. And then you have to put an apprenticeship model in place to do this. And this is why the bootcamp has been such a huge hit. Yeah, you can watch the videos. But then you've got to get into that apprenticeship model.

And we have built this within MIT, where we have a very carefully designed system to help you achieve escape velocity. And I'm going to talk in a second-- and each one that goes through that has their own journey. So I'll come back to that, too. And we work to build teams. That's really important. And then finally, entrepreneurship is a mindset, a skill-set. And it's a way of operating.

And that way of operating is different than command, control, and conquer. When I worked at IBM, it was command, control, and conquer. You have this project built. These people work for you. They will do nothing else in the world. And then what is your name?

AUDIENCE: Agnes.

BILL AULET: Agnes says, but I want to work on my side project. I say, no, Agnes, you're either with us or you're not. Do you understand? We're like the mafia here. We're getting stuff done. And Agnes says, but I want to work on my project. You're out of here. Get out of here. We will never speak about Agnes again. She wasn't that good. She actually was a bum. Let's get some-- Ray, welcome to the team.

You're the new Agnes. Agnes was a bum. But we're going to spend six months to get you up to speed to understand embedded controller coding that Agnes knew all of. And then she's going to be the-- that's called command because you want to own all the resources. You cannot move quickly. It takes too long in that. You can't get the best people anymore.

Entrepreneurship is the pursuit of opportunities with resources beyond your control. This is a definition from Howard Stevenson from Harvard. Entrepreneurship is the pursuit of opportunities with resources beyond your control. So Agnes says, OK, fine, Agnes, just let me know. We've got to run some experiments. And maybe we'll have a huge job for you if these experiments turn out to be what we think they could be. But if not, we're all cool.

And by the way, I don't even need to pay her because she's going to ask me on her side project to help her out. So now, we've got this system where we're bartering each other's skills, and networks, and expertise. That is extraordinarily powerful. And that's the community. That's the fourth H, the community. And that is underrated. And it's I'm very happy to see you're building a community of practice here.

So where are we now? All right? I wrote this *Wall Street Journal* thing, I think, 10 years ago. It's gotten worse. The supply of quality entrepreneurship education compared to demand has just gotten worse. This gap has increased because there's a system here. And it has to be rigorously taught. And that's the problem.

So it's very tough to prove because doing randomized control tests, I couldn't teach half the class the placebos and this class the-- but you all pay the same. That's immoral. That's unethical. You can't do that. But there are ways to get around that. And I think it's even harder because there are things that are very hard to measure. How do you measure mindset? How do you measure community building? But that doesn't mean we should give up.

Let's talk about what we can do. And then we have to say, what are the limitations? What can we aspire to? So this is something I've been thinking about a lot over the past year. And I just recently gave a presentation to the MIT board. They asked, how are we doing in entrepreneurship and innovation?

I said, I'm not going to talk about innovation because everybody's innovating. That's terrible. I mean, that's not terrible. But I want to be in the lane of entrepreneurship because that's very clear. Innovation, it's very hard to define. So we went to the board. And I said, well, where does it start? And you might have seen this note from our president.

It starts from an infinite in places. You can't say that entrepreneurship starts in one place. It doesn't start just at the Media Lab. It doesn't just start at the Martin Trust Center. It doesn't just start in the labs. It might start in the classrooms. It might start on vacation. It might start in the Muddy Charles. It might start on the fields. It might start when someone's walking at the Charles River.

It might start when they're in Yakutia. It comes from anywhere. We have to accept ideas from anywhere. And then when they go into the-- but the thing that they have in common is they have no business traction. And then when they go into the entrepreneurship ecosystem, when they come out, what do they come out as?

They come out as something novel and new that's never been done before. That means it has to be something totally new. That means this is infinite as well. So we have a system where we're expecting things to come in from infinite things, go into this, and come out. And they're novel and new. But they're all economically sustainable. That means they have achieved escape velocity of-- we'll call the escape velocity 35 miles per hour-- or 25.

But they are still incomplete because we are not an economic development agency. We're an educational institution. And when they go out, to have maximum impact-- Biobot was not ready. Well, we'll talk about Biobot in a second. They still needed to grow. So what do we need to do? We need to create leaders of these companies that can take this nascent startup, if that's what we're going to focus on for now, and take it to have impact going forward because it will not be complete when we're done here.

Our role is to take them from zero to escape velocity, put them out of the house. That's how it's supposed to work with your kids, too. You're responsible for them through college. And you shouldn't have to pay for them afterwards. It doesn't always work that way anymore. But that's the way it's supposed to work. And so this is a really hard problem to solve.

Now, the first insight I would say to them is, you are focused on commercializing strictly MIT IP. And so you focus on how do we take that lab thing and get it to market. Yet, I can show you, with data, over, and over, and over again that if you focus strictly on taking the inventors and getting them to be more entrepreneurial, you are limiting your success because what we do is we create lots of entrepreneurs, lots of entrepreneurs.

And the more entrepreneurs. We have walking around this campus, the more, the better they are, the more IP we will commercialize. And that makes sense, as I've just told you. But that inversion of this thinking about it as start with the IP. Let's start with our educational mission.

The mission of MIT is to do research and to educate. But sometimes, research says, well, we're at the top. Let's put education second. And I'm saying, no, no, no, let's put education first. And then you'll be able to commercialize more IP. And in that process-- and I can give you story after story after story, example after example of how that's true.

And then we get into how do we create more entrepreneurs. We have to inspire them, teach them, train them, and build the community, the four H's we just talked about-- the heart, the mindset, the head, the knowledge, the hands, the capability, and then the home, the community. That's what we do.

And how do we do that at MIT? We have to focus not on building buildings, not on setting up venture funds. No, no, no. That's the wrong way to do it. What we need to do is focus on getting the best content we can, and then getting processes in place to teach that. And that is this. That is this underlied by the constant looking at how do we update our disciplined entrepreneurship 24-steps approach? How do we extend that? How do we make that better and better.

All right. So the question is, is this working? Good news is we've been-- the good news or bad news is I've been doing this now for 15 years. And Erdin, how long did you graduate?

AUDIENCE: Around 13 years ago.

BILL AULET: 13 years ago. So the good news or bad news-- I've been doing it 15 years. So we now have a longitudinal study, a data set. And we looked at that data set over 10 years with the teams that had gone through delta v. And we had 181 teams, 692 participants. So how are they doing? How are they doing?

Well, first of all, they all learned how to use additional resources. They didn't say the Trust Center is the only place. They learned how to be distributed. They learned how to build communities. They are extremely satisfied. That's Apple. That's fine. You can give people cookies for breakfast and they're very happy. Are they really building up the muscles?

The survival rate after five years-- that means these are not companies-- I'm not talking about Y Combinator or Techstars, where you have to scrape the world to get them. I'm talking about people like Erdin Beshimov. When we found Erdin, he was a homeless person wandering around Kendall Square.

[LAUGHTER]

Don't laugh, Orlando. I'll come for you soon. But if you asked him, what did he know about entrepreneurs, what did his colleagues know? They hadn't been entrepreneurs before. They were literally zero miles per hour. And the survival rate of those people who went through delta v and stuck with it is almost 70%. It's 69%. They're in business five years later at a 69% ratio. That's mind-blowing, like when you talk to most people.

And 63% have raised outside money. So it's not like they just bootstrapped and they became a consulting business where they were-- these are IDEs that people funded 63% of the time. So not that this is directly-- you could say you could be an IDE without getting that. But you're not going to get funding from outside people if you don't have a growth path to greatness. That's an IDE.

They have raised three-- these entrepreneurs have raised $3 billion. It just blew my mind, $3 billion. That's mind-blowing. And that's not like one raising $1 billion. I think the biggest one is Iterative Scopes. Jonathan Ng, who raised $150 million, not the $150 million, isn't a lot of money. But it's a broad-based track record of success.

And I'm not talking about cryptocurrency bullshit. Samuel Bankman-Fried never walked through our door, just to be clear. I'm not talking about dating apps. I'm not talking about doing a quick hit of making money. I'm not talking about profiteering. 89% of the companies that start in our-- have started at-- are directly aligned with the UN Sustainable Development Goals.

When we talk about entrepreneurship, we talk about a raison d'etre. Raison d'etre means reason for existence. It's a Spanish term, reason for existence. And if you don't have a reason for existence-- we're making the world a better place. That's not ethical. You're not going to get people to join your team. If it's just about making money, they're going to go join Goldman Sachs. They're going to join the new Dogecoin, cryptocurrency, blah, blah, blah. You won't build that sustainable organization.

So this is something we've said. And when we saw this, we were so proud. That might be one of the things wer'e the second most proud about. The other thing here is, when you go look at delta v teams, you ain't going to find tech bros. You're not going to find the Elon Musk, this kind of crap.

These are people like I'm going to show you. It was funny because our breakup meeting this year, the cohort was trying to figure out who amongst them was a tech bro. And they couldn't figure out anyone who was a real tech bro in it. If you give people the right opportunity, if you give them the right thing, over 50% of our CEOs last year were female.

Let me repeat that. It wasn't 55% of our teams had a female on them and they bolted it on for some reason. 55% had women as the CEOs of it. And when you look at the other ones, the diversity in all the other ways, it's not just business school, it's not just engineering school. It is across the board, when people are given a chance, and it becomes a meritocracy, diversity tends to rise up. And that's a beautiful thing. And we have our sneakers here. Can you read to the class what it says on the back of the sneakers right there?

AUDIENCE: I love it. Hungry dogs hunt best. That's a great quote after lunch.

BILL AULET: Hungry dogs hunt best. If you want to do this, you want to put the effort in, we can get you there. Now, that means that we don't have-- to be honest, 75% of the people in my classes now are born outside the United States. If you're a white, privileged guy in the United States and you want to take our class, it's like, understand, this is going to be so hard that you're not going to it. And they don't, a lot of them. It's hard stuff, but it's so worth it when you're successful.

Are we doing everything right? Absolutely not. As Bob Dylan said, "He who is not being born is busy dying." We haven't figured it all out. And the moment we think we have, we're dying. We're dying. And so we have all these things where we're built for renewal. We've been using AI systems for the past five years to figure out how do we customize that extremely complicated system we're talking about here.

How do we customize individuals' paths as they go through this very complicated system that we have here? And there are things that are in common. So I won't go on about that, unless you want to during Q&A. But that's Orbit. Then we have new programs we're constantly going through. And that's what you need to do.

All right. Let me give you some reason for hope. All right. This is Biobot. Biobot Analytics was started, first of all, by a PhD here at MIT who was from Mexico-- female, Mariana Matus. That is Mariana Matus, right there. Her first company, she came to delta v. She went through, took the courses. And she came in. And she had two other PhDs with her.

It was going to be a smart toilet seat. Everybody was like, wow, that's such a great idea-- biomarkers, reading, all that. And if you heard their pitch, it was mind-blowing. And they sat at a table, the three PhDs. And they didn't last 45 days. They were so obsessed with the technology, they could not see their way to commercialization. And it imploded.

And it wasn't because of technology. It was because they weren't obsessed with solving a problem. And she was so determined to be an entrepreneur. She took that experience-- antifragile-- and she said, I get it. The next year, she came back with a much, much simpler thing. It was basically wastewater epidemiology.

I'm going to build a system in a city. We're going to put these little things around. I'm not just going to spend my time in the lab hypothesizing. They put these things in the sewers. And they could tell, is there-- are people using fentanyl in Jamaica Plains? Is there cocaine use in East Cambridge? Are they using heroin?

And so they built this system to try to help for SUD. And she, in the process, realized she didn't need more technical stuff. She needed someone who had expertise. And she met Newsha Ghaeli-- oh, by the way, a female Persian via Canada. Again, these aren't tech bros. You might not be able to see it, but they're definitely not tech bros here.

And they started this company called Biobot Analytics. And I could go for song and dance here about all this. We have some people in the room. And I had the most successful entrepreneur in the world came and tried to convince them that they should stop doing this stuff to help people with drug problems. And he wanted them to work on pharmaceuticals.

And we were in the room when we left. And I said, is that what you want to do? And they said, absolutely not. And I said, we will support you 100%. And they went and did what they wanted to do, what they wanted to do. And Biobot Analytics became the one-- when you were doing COVID, they have literally saved, I don't know how many million lives plus because if you're just testing people, you're getting backwards information.

When you're getting the information through wastewater, you're getting forward-looking information. And so now, the gold standard to tell about what diseases there are in different cities is Biobot Analytics. And their culture that they had, the people who are there, they loved it. They bought houses. They have kids now.

And the people who work there love the company. Has it been easy? Hell no. It has not been easy at all. Lessons learned-- it's not about the technology. It's about solving a customer's problem. By the way, they were skating around. We introduced them to Charlie Baker for working on opioids.

And then they had to pivot when the opportunity-- they didn't have to. They pivoted when the opportunity came up with COVID because they could solve that problem. And now, they're getting these systems installed in all these cities. And they can tell you COVID. They can tell you heroin. They can tell you whatever you want.

They would tell you discipline is the way to go. You've got to do market segmentation, beachhead market, core, all this stuff that we talk about that people say, oh, it's a pain in the ass. 24 steps, that's too many steps. Can't you make it four? It's too hard. It's like, no, there's no reward for an easy job.

And the team, how you had to get a balanced team-- and designing the culture and having that raison d'etre was critical to everything they did. And let me tell you-- they'll also tell you-- you better be antifragile because-- I don't know if you know all the stories. But they have become so successful that the world's biggest companies are coming to steal their cookies, their lunch money. I don't know if you know this. It's awful. It's makes you sick to your stomach about capitalism. But if you're not antifragile, it's the way it is.

So good news even more so-- coming in probably less than 90 days now is an entire new book of *Disciplined Entrepreneurship,* expanded and updated, what I should have written the first time. There's a whole bunch of great new stuff in there. And there will be additional connection to videos and things like that, additional resources.

And then there's this one. We realized when we taught this, it's great to have frameworks in the 24 steps. But how do you decrease cost of customer acquisition? How do you do that IP stuff? And so our executive director at the Center, Paul Cheek, who is a young, aggressive entrepreneur, who's committed to education right now, he has built up all these startup tactics that go underneath this framework.

And you can see things like how do you set goals, systems, market research. And to me, this is a breakthrough because the *Disciplined Entrepreneurship* book needed other things around it. And this is the beginning of it. There's the *Disciplined Entrepreneurship for Corporates, Disciplined Entrepreneurship for Climate* forthcoming. And I think this is great. And by the way, you see my name isn't on here. I'm old. You might not realize that. I am old. We need lots of people doing this. Many hands make for light work and many perspectives as well. And so I'm very excited about that. So questions? Can I take questions before we're--

HANNA: Yeah. And just so you know, they did all have-- everybody got a *Disciplined Entrepreneurship* book as a manual.

BILL AULET: Good. It will be obsolete in 90 days.

HANNA: Yeah, I know. Thank you for the great work. Yes?

AUDIENCE: You kept mentioning "our work," "we," "we." Is there a program we can join to work with you?

BILL AULET: So what we're trying to do now-- so this is all real time. I guess, please don't send-- let's cut here, all right? The way I think now-- Erdin and I have talked about this. Educating a few thousand people at MIT is so remarkable and rewarding. It isn't what the world needs.

We need to figure out how do we export what we do and start educating millions of people. So we've always open-sourced what we're doing. But now, we're going to try to train the trainers around in different universities. I was just thinking about that, how do we raise the bar.

But it's a complicated system to scale because it has to be customized. You can't take what you do at MIT and cut, copy, and paste it and put it at CCNY in New York City. It's a different kind of customer base. There are different assets they have. But a lot of it you can. I mean, that's why Frank Holmstrom says, it's not cut, copy, and paste. It's imitation. It's not copying. It's imitating what somebody else-- and then getting the things around it.

So that's what we're thinking about. How do we do that? I think there's a lot of assets in place. And over the next five years, we would like to help build multiple other educational institutions that can do this. And it's not just MIT. That would be our goal-- not a great business model, come up with something, build it up, and then just give it away. But we're not a business. Our goal is to have impact. So where are you? Where do you work now?

AUDIENCE: Well, that's the interesting thing. I just moved my startup here from California. I'm opening a limited [INAUDIBLE].

BILL AULET: Yeah, great. Great.

AUDIENCE: I have a line of patent-pending vaginal speculums. We're done with the 1800s. I don't believe that the vaginal speculums that we use currently in the hospital or in doctor's offices meet the needs of patiens. They don't curve to anatomy. [INAUDIBLE]

BILL AULET: All this AI, it depends on the data sets trained. And if you have biased data sets, the AI is--

AUDIENCE: My advisors is [INAUDIBLE], formerly Ben Taylor, but one of the founders [INAUDIBLE] and got acquired. So I have him on my side and, actually, an AI-powered vaginal speculum.

BILL AULET: But the AI has got to be powered by a data set that's not biased.

AUDIENCE: He already has the data.

BILL AULET: Good, good. I think it'll be easier for you than people outside of Boston.

AUDIENCE: Well, technically, that's what I-- that's the program we help.

BILL AULET: Well, that part of this program. This program is great for you. But again, we've got 15 to 30 people in this program. How do we do it for 15 to 30 million? Or 15,000 to 30,000 next year, and then start scaling it up. That's what I'm thinking right now. It's all about raise the bar, raise the bar.

I'm frustrated, to be blunt, about the quality of entrepreneurship education. I think, at this point, when I first started 10 years ago, I thought we'd be much further along than we are. I'm just really frustrated. I just showed you the data. This stuff works. Why are we still doing stupid stuff? I don't understand it. I think the government will say the same thing. They're frustrated with their programs. But there's such inertia in systems to kill it. You think it's bad in the government? You haven't seen academic institutions.

AUDIENCE: I was just going to say, certain accelerators, some of them have their own faces. And so [INAUDIBLE], then it's great. But then as soon as you're out of it, it's hard to apply the--

BILL AULET: So a thesis over an accelerator-- an accelerator is a venture fund. You do understand that? An accelerator is not there for your benefit. They exist to-- well, they're for your benefit, so long as you catch a fish that they have a big portion of. That's why academic institutions need to step up here.

As I always say, educators make bad investors. We should not have educational institutions trying to act like venture funds. Guess what? Investors make bad educators because the incentives are all screwed up, too. Their job is not to educate people. Their job is to make a return for their shareholders. So their job is to get a big fish and get a piece of that fish. Our job is to teach people how to fish. Those are two things that are not the same. Yes?

AUDIENCE: My question is, what do you do differently to have 50% of women in your program, when Europe really struggles on the barriers of everything for women, solid funding? What do you do differently here?

BILL AULET: Yeah, first one is see one, be one. If you don't see one, you're not going to be one. You've got to have leadership. You've got to have entrepreneurs and residents that are female out there to do it. That was the single biggest thing that I realized. And by the way, it's not even just females.

It's LGBT-- the thing that I saw the dial move-- literally in front of us, when we brought an LGBTQ person in, all of a sudden, it was like, oh, this place is welcoming to everybody. The aperture just opened up. You can say, we're welcoming to women. And then you can say, yeah, we've got women. Look at Joan. She's from Princeton. Look at Julie. She's from Oxford. Look at Susie. She's from Cambridge. It's just the same goddamn thing, right?

It's just the same upper middle class white people. And you say, but we have now females. That's bullshit. You've got to show that you have different types of people involved in it, and they come from different social classes, and then have them teach, have them bring context to it, have them in the middle of the discussion.

And then I couldn't do it. I mean, I tried. I couldn't do it. You need that heterogeneous perspective. And then you've just got to create a merit-based environment. And that's where MIT is good. That's where MIT is great. MIT is a wonderful, wonderful place. If you haven't noticed, you can't get into MIT because your name is Bill Ackman, and you give a whole bunch of money, and you get little Billy in here. It's not happening that way, right? I just picked that name out of the sky.

[LAUGHTER]

I went to another school down the street. You could buy your way in. You can't buy your way into MIT. This is a merit-based system. Yes?

AUDIENCE: What is the-- what is the [INAUDIBLE]?

BILL AULET: Great question. The first one, I just put it together quickly. And I had no idea that it would be as successful as it was. This one is much deeper into it. It gets into the things that I started to talk about-- the second one of how to do primary market research, windows of opportunities, and triggers. This one gets into-- sales has really, really changed the game-- you're going to have to cut me off here.

HANNA: You have as much time as you need.

BILL AULET: Yeah. Well, I'm 65. So I don't have as much time as I need.

[LAUGHTER]

The most interesting thing in all of entrepreneurship to me right now-- and this is captured in the new book-- is it used to be get product market fit. We've got to get product market fit. How do we figure out who's the customer and what product do they need? And if we generate value for them, then just go hire a salesperson. And we'll do that.

And the game has moved from product market fit to channel market fit. And what do I mean by that? What I mean is products are getting easier and easier to build. If you wanted to build an e-commerce company 10 years ago when I wrote that book, it would take you probably at least six months, millions of dollars. You had to hire a bunch of engineers. You had to know a bunch of special stuff. Do you know how long it would take you to launch an e-commerce company today?

AUDIENCE: I couldn't--

BILL AULET: Yeah, it might take you an hour. It might take you an hour on Shopify. And when you think of all these tools now, the products are getting easier and easier to make. And guess what? When you look at it-- I have it in another slide-- the amount of money that's available to early stage companies goes up. It's just higher and higher.

And the game has shifted from can you get a product and can you figure out a hole in the marketplace to go to market. What's your go to market strategy? What's your cost of customer acquisition? What's your LTV? And the dirty little secret is that cost of customer acquisition has been going like this.

It used to be like, oh my God, we can do it. Just set up a YouTube video, like when we do $1 Shave Club. Set up a YouTube video. And you can break through and have your cost of customer acquisition be so much lower than Gillette's. And you can beat the world.

Well, guess what? Everybody figured that out. And they bid up YouTube. And they bid up Facebook. And they bid up Google ads. They bid up SEO. And it's much, much harder to get that now. And so the expertise over here that is required is really where the action is.

And yet, so much of what's taught still has this inertia from the past. It still says, we've got to do marketing. And then we have to do sales. Oh, now, there's this brand new thing called customer success. And that's a good thing because we have a sales funnel. And a sales funnel is very, very important.

Don't get me wrong. But that sales funnel is a waterfall methodology, a metaphor that says it goes from marketing, and they get the leads, and then the leads go to sales, and sales closes those leads. And we turn it over to customer success. And customer success is a new idea.

Well, if you're not doing customer success by now and you don't understand, customer success makes the existing customers you have love you. And then it pours more leads in here. And those leads are great leads. And they go down. I talk about this in the book. And so it takes what was a waterfall and starts to make it more into a feedback loop system, a flywheel.

But even that is much too simplistic now. What's the most interesting thing going now-- and I renamed one of the steps because of this-- is if you have a chief sales officer who does field sales and your AI stack for sales is salesforce.com, you should be extremely paranoid right now because you've got to have a system where you get revenue. And revenue is the goal, not sales, because sales brings these connotations of salespeople selling stuff.

And that goes through marketing to sales. And sales is the heroes that brings the revenue into the company. But you can get revenue from many other sources than strictly sales. I'm not saying that direct field sales is not still the way to go. Field sales has a role. But if that's the only thing you've got in your bag, you're really exposed.

You should have, oh yeah, inside sales. Oh, yeah, we heard about that. That's our HubSpot thing we've got going. OK, good. You have two. But you could also have other things. You could have this thing called product-led growth, which was a term coined by OpenView here. Mackey Craven and crew made a ton-- how do you get the product to sell itself?

I have a son. He started a company. He did $30 million in his first year. I was like, what? How'd you do $30 million? How did you hire all those salespeople? He said, we don't have salespeople. Think about that for a second. You could do $30 million in one year without salespeople.

The profitability of that company compared to hiring salespeople, the advantage they have over people who have to hire salespeople-- who's hired salespeople in this room? Is it easy? It is wickedly hard. And if you get 30% of them right, you've done well. Imagine if you could do this with other ways.

AUDIENCE: And as soon as one leaves you, then I'm screwed.

BILL AULET: Yeah, yeah. And because they take their Rolodex with them and their relationships. And now, you can start to do more ways with ads. You can use AI tools. You can have the community give you these things. What they call different motions, I prefer to call them dials now, that you can generate revenue.

And this is an agile model as opposed to a waterfall model. Sorry, you're asking the question. And this right now is one of the most interesting things. It's how do you build a system where you can sell direct, or you can sell through brick and mortar, or you can sell inside sales, or you can sell using PLG, you can sell advertising, you can sell through your legal department, you can sell through channel-- the traditional-- not traditional channels. You can build up channels market.

There's all these ways to do this. This is the most interesting thing in entrepreneurship right now. And we totally gutted our entire class. Very good friends of Erdin teach it now. It is not taught by people who took psychology, or sociology, or back-slappers who know how to take people out to dinner and go to games. It's taught by four engineers.

It's taught by four engineers, like serious engineers-- Max, Adam, this one from Carnegie Mellon, Emanuel Scala. And they have this course. They have it all changed now, where it's now how do you think about this? You know the biggest one, contributor to Toast? You know Toast? You know what Toast is?

Toast is this company that came out of MIT from nowhere. And all of a sudden, it's in every restaurant. And they handle the payments there. And how do they grow? They didn't grow by hiring salespeople. Emanuel Scala grew by saying, wait a second, we're getting these-- we already have customers. Let's build this customer success team. And they're going to go out.

And so when someone gets the order, we're going to get them on it. And we're going to make them successful. We reduce our abandonment rate. And they go from time that they signed up with us to generating revenue for us to extremely happy to getting out there to feed us new leads in it.

And they talk about how to think about revenue as a loop. It's one continuous thing. And the best thing is not just to hire salespeople. It could be customer success. It could be having your engineers to do it. But it's a balanced system. So that is one of the big areas as well. But I can't summarize 350 pages in--

AUDIENCE: [INAUDIBLE]

BILL AULET: It's written the way that-- the first one was kind of like-- I didn't think about what additional resources you'd have. I didn't think, like, here's an example that you would have the whole way through. It was just like a slow white point guard slapping something together over the summer, which is exactly what it was.

AUDIENCE: I mean, the notion that everyone [INAUDIBLE].

BILL AULET: You should think of yourself as a revenue generator as opposed to sales because when you say the word sales, it tends to bring up *Glengarry Glen Ross* or *Wolf of Wall Street.* And the best salesperson you might have is someone who builds a hook in it to get other people in.

AUDIENCE: [INAUDIBLE]

BILL AULET: Yes. And to think about generating revenue is not just going out and selling it to people. What problems are-- yes, ma'am? By the way, where are you from? Where are you from?

AUDIENCE: [INAUDIBLE]

BILL AULET: Oh, really?

AUDIENCE: [INAUDIBLE]

BILL AULET: Many people have referred to it as epic and legendary.

[LAUGHTER]

Actually, only one person has. That's me, yeah. Wait. What is your name?

AUDIENCE: Eugenia. [INAUDIBLE]

BILL AULET: But you look so much younger.

[LAUGHTER]