

PODCAST 290: THE LEAN STARTUP WAY

By Mark Graban



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Eric Ries is the author of *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses* and *The Startup Way: How Modern Companies Use Entrepreneurial Management to Transform Culture and Drive Long-Term Growth*.

Joining me again for episode 290 is a three-time guest, Eric Ries. When we first talked, in episode 115 six years ago, his New York Times bestselling book *The Lean Startup* was being published. In 2012, we discussed the impact of Toyota's Taiichi Ohno on his work, in episode 142. This time, we're talking about his most recent book, *The Startup Way*.

Eric explained that back in 2011, he had written in *The Lean Startup* that the best way to think about entrepreneurship was as a management discipline. In that book, he defined a startup as

"a human institution designed to create something new under conditions of extreme uncertainty."

"I had to learn to stop using the manufacturing metaphors and the Japanese lingo, because people in Silicon Valley thought I was really weird."

If the definition of a startup means it's institution building, then it's necessarily managerial. And, if it's about uncertainty,

then it necessarily is not about any particular industry, or size of company, or sector, he explained.

"I didn't know, frankly, if anyone would take me seriously. My experience at that time was really concentrated in the venturebacked startups you'd imagine here in Silicon Valley," Eric said. "On the other hand, I felt like I was drawing on ideas, including Lean manufacturing and a bunch of others, that certainly had plenty of relevancy in other contexts. I felt like what's nice about working from first principles is that things become transferable across

domains because it's thinking conceptually, not just extrapolating naively from a direct experience.

"Anyway, so I put it out into the world as an experiment to see what would happen. I was actually very surprised how many large companies reached out to me."

Almost as soon as the book was published companies were contacting Eric, who said he has since been able to put the book's ideas to the test in a really wide variety of situations.

"It's been fun. It's been a crazy ride, almost like a backstage pass to the world of business. I've been in every region, every geography, every kind of company, every order of magnitude of size company, from two founders in a garage up to multihundreds of thousands and everything in between. It's been one challenge after another to try and figure out, 'Hey, have we found the limits of where these ideas could be applied yet.' So far, not yet," Eric said.

Pushback

While he hasn't found the limits of Lean Startup application yet, that of course doesn't stop some companies from giving some pushback on the ideas. This was especially true during Eric's early work with startups, with many software engineers asking why they were talking about manufacturing.

"I had to learn to stop using the manufacturing metaphors and the Japanese lingo, because people in Silicon Valley thought I was really weird," Eric said.

Eric has experienced this type of pushback the other way as

well, as he was doing a large transformation inside of GE.

"My experience has basically been that, no matter what people are doing, they will fixate on any difference between what they do and what the speaker is doing as a reason not to listen if they possibly can."

"Because GE going through this really massive digital transformation themselves, eventually we started to touch the rest of the company. We did the internal functions and including IT, HR, finance. Then we started to touch even their more cutting edge, actual digital products that they make as part of what they call the 'Industrial Internet.'

"In one of the trainings I was doing, I'm doing my typical Q&A with skeptical executives. One of the executives says, 'OK, hotshot. Obviously, these ideas are going to work in a staid and boring domain of manufacturing, but how's this going to apply to the world of high tech digital technology?'" Eric said with a laugh. "My experience has basically been that, no matter what people are doing, they will fixate on any difference between what they do and what the speaker is doing as a reason not to listen if they possibly can."

Eric recalled working with a packaged goods company who had seen the methodology work for a very close competitor on a product that was just in a different aisle of the grocery store. Though it was sold in the same store, the fact that the product was three

aisles over was used to justify saying it won't work for them.

"What's funny is I believe that the foundation of all these theories is a scientific method and being willing to apply empiricism to business problems, which you would think would be an uncontroversial and fairly obviously idea given that all of the improvements in living standards and just about everything else has happened in the last 500 years, we owe to this very basic conceptual framework and, yet, businesses are often seen as exempt. Anyway, what I always tell people is, 'Look, if this is a scientific theory, then I don't want you to take it from me or any other expert on faith. You should run the experiment yourself to find out if I know what I'm talking about. Forget these theoretical objections. Let's go try it out. If I'm full of it, it'll teach me something, so what do we have to lose?' That's when the real conversation starts," Eric explained.

Toyota and Lean Startup Methods

Lean Startup Week, a seven-day event run by the Lean Startup Company, which was founded by Eric, Heather McGough and Melissa Moore, has been starting conversations about the ideas from Eric's books for several years now. Some of the stories that I remember hearing at the conference were about two engineers from Toyota taking Lean Startup methods and applying them to their work. I asked Eric to explain how Toyota came to embrace his ideas.

"If you write about Lean topics, getting an email from Toyota is a little bit like getting called in the principal's office. At least that's

how it felt to me. I got an email out of the blue from an engineer at one of the Toyota divisions that is based in the United States. He said, "Would you come in and talk to us about Lean Startup?" Eric explained. "My view was our debt as Lean practitioners to Toyota is as close to unlimited as you can get, so, whatever they want, I'm there, even if it's just to reprimand me. Anyway, it turns out that was not the purpose of the conversation."

It was a really terrific experience, Eric said, and far from being defensive about someone from the outside, who had rarely set foot in a factory of any kind, talking to them about something Lean, they were really very open, transparent, and willing to experiment.

"The issue that they were having, I don't think I'm speaking out of school here to say that they have historically treated the consumer electronics and the IT components of a car as if they were just regular parts, the design and manufacturing of which can be outsourced to specialized vendors just like you would with any other kind of part. As a result, they have historically done the digital part of car manufacturing on the same cycle times as the physical part of manufacturing, which made sense at a time when software development cycle times were not that different from physical production cycle times. Now, that's not true so it puts them at a real disadvantage. Their software always looks and feels really clunky compared to what people are used to in their smartphone or what have you," Eric said.

The quality needs to be defined in the eyes of a customer, he explained, especially as the consumer software components

of vehicles slowly start to increase in importance, likely to the point where they will soon dominate the buying decision.

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"It was a conversation on how could we treat the car development to take into account the need for this kind of innovation. Of course, the people who had brought me into the company were part of the IT and research arms of the company, and they would have been long trying to push the company in this direction," Eric said. "Lean Startup gave them a framework to have the conversation with their colleagues in Japan, and then the rest of the organization."

Tomoyama-san

Eric recalled a meeting with Tomoyama-san, one of the senior executives who's one of the people in Japan who's been pushing Toyota to be more innovative for many years.

He was on one of his periodic tours of the different Toyota

outposts, when he was in California, he and his significant entourage met with Eric and a few of the American engineers who had instigated the project.

"It was one of these very funny culture clash moments," Eric said. "The book had just been translated into Japanese, so I got the sense that the entourage had read the book. He didn't speak of course for most of the meeting, so I had no idea what was going on — if he was pleased, if he didn't like it. He was totally stoic and I'm doing my best to make myself understood. Finally, the meeting gets to a moment where somehow everyone else knows the cue to stop talking, and he speaks. He said, 'This is the missing half of the Toyota Production System.'

"I'll never forget that. It was one of those incredible moments where he was really focused on, 'How do we develop a system as a company that's as good for discovering what to build, what the new customer preferences are as it is, and once we know what those answers are then building it with high quality?'"

As an observer of Toyota who knew them only from the outside and what he had read, Eric said that it was a treat to see them live their values up close, even in an area where they were struggling.

Comparing the experience to what might happen in another corporation, Eric said this project could easily have been bumped as the people who introduced the idea were too small, too unimportant to matter, so it wouldn't be funded at all. Or, if they did convince senior management to do this, the project may have been managed centrally from Japan,

and high-level people would be in charge of it because now it has a budget. However, in the classic Toyota way, after working hard to build consensus and working up and down the chain of command to get this project approved, the control of the project and the budget was then allocated locally to the people doing the actual work.

***“This is the missing half of the Toyota Production System.”
-Tomoyama-san***

“They really had a lot of freedom to design and implement it, and kicked off more and more ways of that kind of consensus building to figure out what to do with the results of the learning that they got. It was neat to see it in action,” Eric said.

Internal branding

Making Lean concepts their own is a pattern Eric has noticed among successful organizations and startups.

“The people that do this successfully make it their own, and that includes building their own branding for it, often using their own terminology or modifying existing terminology. I would often remind people it’s not called Lean manufacturing at Toyota, they call it the Toyota Production System. They’re not bound by some abstract theory that somebody else invented. They think it’s their own and, of course, they understand that what Toyota Production System looks like is different in different places, and in different divisions, and in different geographies,” Eric said.

GE created the FastWorks

program, built on Eric’s Lean Startup principles, and when he first heard they were going to brand it FastWorks, he actually thought it was a “goofy” name.

“No Silicon Valley company would use that kind of branding, but as I got to learn the culture and history of the company, it made sense. It tied into past things that they had done, like Ecomagination, and Six Sigma, and Workout. It had a certain kind of hokeyness to it that was actually consonant with their corporate culture. That was really what I learned, is that this has to be an indigenous transformation. You can’t do it because some outside consultant told you to do it,” Eric said.

Leadership Buy-In

For GE, the process began with running some initial experiments with Eric. The experiments were overseen at a very high level, meaning they did workshops attended by a lot of senior vice presidents who were there just to observe. While Eric admitted that’s not exactly the greatest environment for a workshop about failure and openness to learning, the idea was that they really wanted to make sure that this works, and then, if it works, task the senior leaders with rolling it out.

“There’s this incredible latent energy and creativity available in our existing organizations that we absolutely squander today,”

When this became a formal program inside the company,

there was an initial steering committee, like a board of directors, to oversee it, which was comprised of head of marketing, head of technology, head of the global research, executive of the CTO of the company, head of HR, IT, and finance.

“The most important functions and the most senior leaders of those functions were overseeing this personally and they were jointly accountable to the CEO for executing it. That just made such a big difference. It meant that this was going to get senior level championship from the very beginning,” He said.

It also allowed the team to work cross functionally and to build cross functional teams.

The Next Steve Jobs?

I asked Eric about the parallel of not just getting everybody involved in continuous improvement, but the idea that innovation and entrepreneurial methods are something that anybody can use in the organization, and the pushback he’s received on that idea.

“If you think about how radical it was to suggest that factory workers and line managers could be involved using their own creativity in the improvement of the work process that they executed,” Eric said. “I feel like there’s still organizations that find that idea difficult. Here I am saying that you might already employ the next Steve Jobs. Not only that. You might be on the verge of firing them because they’re not important to you. They might have a business card and be paid badly. They might be this insignificant figure in your

organization, which people forget describes the actual Steve Jobs in real life.”

Eric recounted how Wozniak was working as an engineer at HP, and begged them to commercialize the prototype that he and Jobs were making. He was going to give it to them for free out loyalty because he worked there, but after taking it to every division where he knew someone in the company, he was rejected everywhere.

“There’s this incredible latent energy and creativity available in our existing organizations that we absolutely squander today,” Eric said.

Continuous Innovation

As Eric explained, there’s a time and a place for optimizing an existing workflow that we know creates value but has some waste embedded in it, and there’s a time and place for building a new value stream from scratch.

“It’s just that I think our attention has not tended to be drawn there because, to be fair, in the 20th century, most business value came from the scaling of existing and probably wellunderstood products and supply chains. I don’t mean this as a criticism of what came before but, rather, a new extension of our older management ideas into a new world. We live in a world that early 20th-century management pioneers that we all revere would have found absolutely unrecognizable,” He said.

Building a new value stream from scratch comes with risks and unknowns, which doesn’t fit into the dynamic of many big companies where perfection is often sought.

This seeking of perfection allows the people who want to delay, and work in large batches, and sit in their cave, and just think great thoughts, as if those work processes actually deliver perfection, Eric explained.

“The thing that produces perfect outcomes is to measure, and learn, and improve.”

“I got used to telling people, ‘Listen, if I interviewed your customers right now, would they tell me your product launches are generally perfect?’” Eric said. “When was the last time you met with someone who was working on a project, and they said, ‘I have an idea; in order to make my project more perfect, I’m going to go slower, think harder about it, but by myself, with no customer input. I’m going to have more politics and bureaucracy and meetings.’”

“What is the evidence that that produces perfect outcomes? The thing that produces perfect outcomes is to measure, and learn, and improve. That’s an old Lean idea going back to [W. Edwards] Deming. We just want to apply that same thing here. That this is the pursuit of perfection, but in order to make something more perfect, you have to admit that it ever was imperfect.”

This starts with being honest about the fact that products are imperfect, and understanding that the best way to make them better is to ship them to some customers, with a limited scope at the beginning so that we don’t embarrass ourselves too widely, in order to learn and improve with each iteration, Eric explained.

He added that for physical products especially, a factory that is set up for singlepiece flow is especially welladapted to do this, because they could use the same ability to make every product to custom order, or can use those same capabilities to run more experiments by diversifying the specifications set at low volume.

“I feel like that illustrates the difference between continuous improvement and continuous innovation. We’re not just trying to come up with one new product at one time, and then it’s an innovation and we’re done. It’s seeing that just like you might try to improve the margins of a product at all times by making it more efficient to produce, there’s another way to improve margins on a continuous basis, which is to make the product more desirable to customers. We should treat them equivalently, continuously,” Eric said.

Continuous Transformation

In regard to Eric’s work, he explained that he really sees *The Lean Startup* as trying to take a reader from the idea that maybe they would like to do innovation, to the more avantgarde idea that they should do continuous innovation. In *The Startup Way* he then picks up the baton, starting from the premise that the reader wants to do continuous innovation and work entrepreneurially, seeing it as a source of new growth and revitalization down the road, and leading them to the idea of continuous transformation.

“The steps of the argument go like this. If you want to do innovation, then you need a tool in your toolbox to attack those problems on a regular basis. I call it the startup as an atomic unit of work.

You have to be willing to say that, like that 25-person IT finance committee, that's the wrong structure to get the work done. We need a startup," Eric said.

The Two-Pizza Team

Eric explained that a startup is a small, crossfunctional team with a scarcity mentality, with "metered funding," which means a fixed resource budget to apply that's accountable to a board of directors. A startup is not governed by your usual corporate review process, which is typically not at all suited to innovation.

Startups work toward building what Eric calls "minimum viable product" (MVP) using a system called "innovation accounting" to measure results.

"It's like a special kind of tool in your toolbox, and companies like Amazon do this all the time. They have what they call the two-pizza team — a team no larger than you can feed with two pizzas. It's just one of their corporate rules that, when they're trying something new, they're going to throw a two-pizza team at it," Eric said.

While two-pizza teams don't always succeed, as in the case of the Amazon Fire phone, many times success comes out of failure. Many of the people that were involved with the Fire phone went on to create all kinds of successful products for Amazon, including Alexa, and Fire TV, Eric said, learning from their previous mistakes.

"The nice thing about it is this allows them two different styles of working to coexist within the same organization, because we can still do traditional product management. We can still do

traditional manufacturing," Eric said. "No one's suggesting that, for a product that we market for over 25 years, we're producing at massive scale, but we do have good ability to forecast demand in a seasonal way. That's fine to continue to use traditional management techniques, including Lean manufacturing techniques, for that. That's totally fine."

The Missing Function

While it starts as a two-pizza team, it tends to then grow into something larger, which then raises the issue of who on the org chart is responsible for managing innovation work.

"Who comes into work thinking every day about the risks of disruption and the ability to act as insurance against them or to harness them for future growth?" Eric posed. "We have to solve the problem I call the missing function — that there is no place on the org chart for entrepreneurship."

Solving problem requires developing a new corporate form that is both responsible for overseeing the company's internal startups and, therefore, the continuous innovation program, but is also required to integrate entrepreneurialtype thinking across the rest of the organization in the same way that Lean can't be confined to the factory floor and often starts to grow out to the adjacent functions and eventually touch the whole organization and touch the whole supply chain., Eric explained.

Once an organization is on board to adopt a new and more modern corporate form to add entrepreneurship as a function, they often ask, "Now what?"

"You say, 'OK, we have to do a corporate transformation.' This is a very particular kind of corporate transformation with a very particular kind of difficult challenges that I try to outline in the book. I try to make the case that transforming the structure of an organization is also an entrepreneurial challenge. It has to start small. It has to scale quickly once it's proven. It has to have a certain kind of funding and accountability structure. Then, finally, if you buy my argument all this way that transformation is a kind of entrepreneurship, doesn't it sound stupid to just do it once?" Eric said.

"I'm of the Peter Drucker school of gurus. He used to say, 'People call me a guru because I can't spell charlatan.' I don't want to be anyone's guru. Just give me a break."

Eric doesn't want to be seen as a guru and says this is not the one true management system for all time, saying that, at best, this is the first management system that contains within it the seeds of its own evolution.

"This is going to be experimental, and scientific, and really driven by the needs of workers on the ground. That's my idea. We should treat corporate transformation as a corporate resource, a discipline that we have to master in order to be able to handle the waves of disruption that are coming our way," Eric said. "The idea that being rigid and static is the best way to surf a wave and you got to deal with constant, gyrating change. It's appealing in that it's comforting if it was true, but that's absolutely no evidence to suggest that it's

a rational strategy under any circumstances.”

Although many might find it counterintuitive, Eric argues that there should be what Lean practitioners would call “standard work” for innovation. Venture capitalists agree that there’s a way to do innovation well and there’s a way to do it poorly, although they don’t necessarily agree on what the standard work should be, or even that it should be the same checklist for every company, but they know it when they see it, Eric said. They know what good innovation looks like, and they know that there’s a certain mindset, a certain culture, a certain way of going about things that works and ones that don’t.

“We wouldn’t accept this kind of loosey-goosey lack of standard and accountability in any other kind of work that we do. Why should innovation be an exception?” Eric said.

Lean Startup Week

To wrap up I asked Eric to talk a little bit about Lean Startup Week and the plans this year.

“If you’ve never actually seen a Silicon Valley style startup up close and you’d like to see what it looks like, we do site visits and you can see the animal in its native habitat as well as, of course, talking all this theory about the things we have to learn between startup founders and leaders in large companies,” Eric said.

The conference also promises an unusual combination of company sizes and industries all mixed up together. For those in healthcare and manufacturing, the entrepreneurial presence in the room can often be a source of energy and excitement.

“If you want to talk to people who think Lean is just a new, fresh,

bold thing that is cutting edge, come meet our folks there. They’re pretty excited to be there,” Eric said, adding that he and the other organizers really try hard to get unheralded voices right from the trenches so that the conversation about what’s actually going on with these projects can be candid.

“It’s not a lot of rahrah PRdriven announcements. It really is people who are willing to talk about the challenges that they’re facing right now and, therefore, it has a raw energy that most business conferences just don’t.

Lean Startup Week 2017 takes place at The Warfield and The Village in San Francisco from October 30 to November 5. For more information about Lean Startup Week you can visit leanstartup.co or you can visit leanblog.org/290 where I will have that and other related links, as well as a link to Eric’s new book, *The Startup Way*.



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