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# Why 'timing is everything' in tech, explains iPod creator Tony Fadell

Hans Tung

11-14 minutes

*This article is from an episode on GGV Capital's [996](#), a podcast about tech and entrepreneurship in China hosted by Hans Tung and Zara Zhang. This is heavily revised from the original show transcript. For the full interview, go [here](#). You can listen to the 996 Podcast by searching "996" in any podcast app.*

Tony Fadell is the inventor of the iPod, co-inventor of the iPhone, and founder and former CEO of Nest Labs – a pioneer of the internet of things. He is currently the principal at Future Shape, an investment and advisory firm that coaches deep tech startups.

Fadell was the senior vice president of Apple's iPod division and led the team that created the first 18 generations of the iPod and the first three generations of the iPhone. Throughout his career, Fadell has authored more than 300 patents.

Here, he discussed what qualities he looks for in entrepreneurs, how to discover the next game-changing technology, and how timing affects a startup's success.

Tony Fadell, principal at Future Shape / Photo credit: [Web Summit](#)

## What excites you these days?

Innovation is happening everywhere. I'm definitely excited by what I've seen in China. I first came to China in 2001 with the iPod. And visiting back after about five years, I've seen how much it has changed. It's no longer just copycatting in a lot of ways but also innovating in ways never seen before.

I think of first-mover advantages all the time when I invest, but I also think of last-mover advantages. And when you think about China at the time when there wasn't a lot of consumer credit, it's good to see how the people used the best technology, made it themselves, and created things the world has never seen before. It's not just about taking old systems and innovating them, but creating new things. It's about technology being applied to new spaces.

I left Apple because after 18 generations of iPod, the 19th one was pretty predictable. I think you can also pretty much predict what the next smartphone wave will look like, and that's not fun. What you want to do is be on the cutting edge to create something that's changing.

## How can you tell if a team is just doing a "science project" or something truly revolutionary?

Ask them what their mission is and what they're really trying to do. If they're just trying to find more money to continue their research from college, it's very clear that they don't think about the business implications. They just want to keep having fun doing what they're doing.

But if they say, "I have this technology and it can change the world in these dramatic areas," and state some business or market case for it, that's when you know it's something interesting.

We see a lot of great demos – nothing wrong with robotics and all those cool AI projects they're running – but I keep wondering, "What need are we filling? What are we really fixing?" And I ask teams, "In 10 years, when you wake up, what are you going to have on your resume to show that you have built something great?" And that something shouldn't be just another product or demo but a business that will last beyond your time at the company.

## What do you consider to be the right problem to solve today?

Timing is everything. Sometimes a failure is based on execution, other times it's based on timing. So you would always want to be a little bit sooner than it needs to be. Nest was just a little bit too soon, but

it worked out.

A great idea in China might not be a great idea in North America or Europe. So think about timing and what the customers are saying, not just what people are talking about in the press.

If it takes more than two minutes to sell your idea, either you're probably not doing a good job explaining it or you're too far advanced.

If you're doing something that needs to be done right now, you're probably not innovative enough.

Most people didn't know what General Magic was, but we were basically creating the iPhone from 1991 to 1994. We had the best team and everything from downloadable apps to games and email. But it took us 15 years to get there. We were a total failure, showing up that late, even though we had the right idea.

If you're doing something that needs to be done right now, you're probably not innovative enough. You need to build something that will be a hit in four to five years when the market wakes up. That means you're starting before anyone else is.

But you can't be so close that everyone else is doing it or it's pretty simple to implement. You can't also be 10 years out when business isn't happening yet. If you're doing anything important, I always say, "It takes 10 years to really realize a business." A good product usually takes three to four years, and you'd want to ship something in a year or a year and a half. You should always be thinking in those kinds of horizons.

### **Will you go back one day to solving the problem yourself?**

I will not get back to it. It took nine months for me to finally commit to become an entrepreneur because I had to look at it from every angle. I really wanted it to be right. I also had over 20 years of multiple startup failures and successes, as well as being at Apple running like crazy.

So now that I'm financially fine, I think I don't have to throw myself into it again. It's not that I'm risk-averse, but I like to mitigate the risks and make sure I really understand what the real opportunity is before diving into it again.

I have a different "calculus" for when I'm going to be the CEO versus when other people should be the CEO, and I think what I can do is invest and help them get around certain obstacles because I've been there before. But is the business good enough that I would want to tear myself away from my family and go through all that stuff, since I had been doing it for about 30 years? It's very hard for me to want to engage and say, "Oh, I wish I could do that," because I know how hard it is.

It's really a young person's game to be an entrepreneur. You have to be in your 30s. Twenty-something CEOs are not usually successful. Sometimes they get lucky, but that's just the reality. Most of the time, it's in your mid-30s or early 40s when you can become really successful. By then, you've figured things out, failed enough times, and learned. I'm not in that category anymore.

### **What kind of lens do you use to look at investments in different geographies?**

You have to have a different approach investing in China versus in the US or Europe because each market is in different stages. Here's one thing we learned at Apple working on the iPod. Apple wasn't doing well at the time the iPod came out. It was critical, but it's somewhat a success in the first year or two.

But it's too Apple-focused: you could only have a Mac to use an iPod, so we could only market it in the US and, a little bit, in Japan. Nobody in Europe was using Mac or any of that stuff.

You need to understand the dynamics of each market to know if an investment really makes sense.

We then modified the iPod, and by the third year, we made it work with a PC. We took it to Europe and the rest of the world.

The first time we marketed in these geographies, we did marketing as if we were still marketing in the US. We forgot that the people didn't really know what an iPod was. They didn't know what 10,000 songs in your pocket was. In the first six months since launching in these countries, we didn't tailor the

marketing to understand the market. Instead, we tailored it based on, "Let's take what we've done in the US and copy it." We had to bring those people up to speed.

This is a long way of saying that you need to understand the dynamics of each market to know if an investment really makes sense.

### **Why did you move out of Silicon Valley?**

One of the biggest reasons why I'm traveling is that you won't know about other people's problems unless you live them. In Silicon Valley, everything looks like everything's solvable. But it's absolutely not the case. The reason why you start a startup is because everybody has different problems to solve, with different needs and different ways of being.

The other reason is that I got used to the environment. After being in Silicon Valley for 20 years at that time, I saw that everything was the same. I saw the same problems. But when I went outside that bubble to a different place where fundamentally everything's different, it knocked me off my thing and I had to reevaluate everything and relearn how to live. I needed to learn, "Why did they do it that way? Is it smarter?"

So when you realize that there are smart people all around the world, go and interact with them.

Most of the time, people say, "Come, meet with me and move your startup near me because I know better." No. You need to go the other way and meet with people. It's now about going to the markets and making those markets happen. If I didn't do that, I would not have seen the real problems and kept on solving what everybody else thought were the problems.

### **Should aspiring entrepreneurs first train at big companies or jump straight into entrepreneurship?**

If you want to be a great entrepreneur, you better know what sales and marketing is, and not just engineering, operations, or finance. You need to know pretty well what each function does and how they interrelate with each other.

Will you be able to learn that in a massive company? No way. You'll just be a cog in the machine. How about at a startup of five or 10 people? Absolutely not. What I am for are small, 80- to 150-person startups (not more than that), where you can join in the first two years and watch it grow. See what kind of stress goes on in the environment when they're growing at 10 or 20 people per quarter.

It's when you can go and have lunch with the marketing or finance person and learn what the team is talking about. You don't learn this stuff in school. No business school is going to tell you about company failures. You'll just hear about case studies.

You got to be there and learn by doing.

This is what happened to me. I started my own company right after school, but I didn't know what I didn't know. That's why it was great that I got to join General Magic where I saw everything. I was employee #30 at this company, but we grew to 200 in a very short period of time.

You need to be part of the many pieces of an organization and learn to speak the language of all the different divisions and types of people.

### **How can teams move fast, work hard, and still innovate?**

First, understand what your true value and differentiation is, then work really hard on that. You have to work double time until it gets to a certain extent.

But it can't be like that all the time because you can end up in the echo chamber of a city, industry, or company, where you can never see what reality is like outside and the real problems because all you're doing is solving. You probably won't even remember what your own problems are (e.g. inside yourself or family).

Sometimes you need to slow down to speed up.

Everybody needs time to process. I always say, "Sometimes you need to slow down to speed up." That means having the proper product development checkpoints, board meetings, and communications. It doesn't mean there needs to be a lot of red tape and processes, but you need to slow down so that you don't make mistakes.

It's about experience management as opposed to "we'll just work faster and harder and we'll get it solved." It doesn't work that way. You'll just get burned out.

I've seen that a lot in startups and young managers. People think that working harder will solve the problem. But it's not always the case. Most of the time, it's not.