ADVICE FOR ENTREPRENEURIAL ENGINEERS

Experience teaches that **problem recognition**, **storytelling, and leadership** are critically important.

Entrepreneurs are everywhere today—from Silicon Valley to incubators and tech hubs around the world. While many startups are in tech, others involve engineers who use digital tools and 3-D printing to invent new products or reinvent existing ones.

So, what should potential entrepreneurs consider before leaping? I don't have a definitive answer, but after 25 years of funding startups, more than 40 successful investments, and eight initial public offerings, I see some patterns that work.

Pick the right problem. Engineers typically love technology. But venture capitalists crave hard problems in markets that are big enough to turn a technical solution into a large, profitable company.

How do you recognize the right problem? You may encounter it through work or from credible experts. But to really understand it, you need to talk with people who have the problem and have tried to solve it.

Some problems are unrecognized until solved. In 2009, for example, Venrock backed a lawyer who realized that small e-commerce businesses faced the same cybersecurity threats as Amazon and Google, but lacked their powerful cybersecurity infrastructure. Today, that firm, CloudFlare, protects more than one million websites.

Gather a team. CloudFlare's founder had no technical expertise. So he partnered with a technologist and a marketer while he handled operations and strategy. The founders of Intel, Apple, Oracle, Google—all the great tech companies—were part of similar teams.

Tell a story. To get the attention of VCs, tell a story. Stories are great teaching tools, and people like them.

Your story does not have to explain everything, because no VC will give you millions of dollars at a first meeting. The goal of your story is to spark enough interest to get a second, more in-depth meeting. Expect several meetings—and increasingly difficult questions—before a VC funds your business.

Your first presentation should last 30 minutes, with no more than 15 to 18 slides. It should explain the problem, the market, and a light version of your solution. Include estimates of revenues and expenses. Explain why your team can solve this problem better than anyone else.

You will probably have to teach yourself to tell a compelling story: how to set up a problem, explain possible solutions, and provide information without overwhelming listeners. Study well-written newspapers and magazines like *The Economist* to see how they take you deeper as the story progresses. You'll know you're getting it right when you can describe the essence of your work in 50 words or less to your parents, spouse, or friends.

Learn to lead. Companies succeed when founders lead. This takes many skills, but let me focus on two.

First, leaders must often make decisions with incomplete information. Fortunately, engineers know how to make, solve, and test assumptions. Learn to focus on what you know, admit what you don't, and cut off analysis after a reasonable amount of time. Time is a startup's enemy. Even a risky decision is less risky than giving competitors more time.

Second, leaders focus on what I call the long ball, their vision of success. This is harder than it sounds. Successful startups average nine years to reach an initial public offering. Your team must focus on the long ball and muster the confidence and resources to achieve its goals, even when faced with short-term obstacles.

The best entrepreneurs I've known do these things well. But every engineer should learn to recognize problems, tell stories, and make decisions with imperfect information. The way to build these skills—and prepare for leadership—is by doing them now. ME

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