Hiring in the Software Industry

Tobias Kaatz

IN THIS EXCERPT FROM episode 208 of Software Engineering Radio (www.se-radio.net), Tobias Kaatz interviews Randy Shoup. Shoup is the former CTO of Kixeye, a video game development company, and prior to that served as Google’s director of engineering for its Cloud Computing Group. No stranger to SE Radio, Randy appeared on the show in 2008 when he was an architect at eBay.

I connected with Randy at a conference here in San Francisco last year, where I invited him to come back on the show. At the time, I intended to do another show about architecture, focusing on how things have changed in the intervening six years, and the differences between a platform such as eBay and video game development. Traditionally, SE Radio has been strong in the areas of design and architecture, but we recently decided to also address career development. So, I asked Tobias to do a show on job interviews and hiring.

While a vast amount of literature covers how to conduct a job interview—from both sides—this show provides insight into how a technology leader manages the interview process. One of the more interesting aspects of the conversation was the discussion of cultural differences between US and German practices.

After you read this partial transcription, I hope you’ll download and listen to the entire thing. It went so well that Shoup has agreed to do another show about engineering culture, which has been recorded and will be published later this fall. —Robert Blumen

In some of your talks, you spoke about hiring “A-players.” What does that actually mean?

It is very well documented and studied that, particularly in creative industries like software, the difference in productivity between the most productive and least productive people is not just like 1.5 or 2 times; it is like 10 times. The most productive engineers in a sufficiently broad company are around 10 times as productive as the least productive ones.

Since that is true, you’re better off as a company when you have this opportunity to hire those “10 times” people, because (a) you can hire fewer of them and (b) if you hire fewer of them, you can have smaller teams. Simply by having a smaller team, there will be a lot less communication and coordination overhead and the team can be more productive. All else being equal, a company is much better off hiring somebody who is more skilled rather than less skilled.

But you asked a very excellent and subtle point: is that objective or a bit subjective? Think of it as the World Cup. The best national teams don’t have all the same [type of] player. There are people who can play lots of different [positions].

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because they’re skilled in all the skills, but a great national team is formed from a combination of players who have different skills and different abilities. A particular player who is excellent on one team isn’t necessarily going to be a good fit for another. The Brazilians play a different flavor of soccer—football, excuse me—than the German team, than the Spanish team, than the Dutch team. The best player for a particular team is unique to that team.

That means that when a company says they’re hiring only A-players (the so-called top 10 percent), this doesn’t necessarily mean that a second company is talking about exactly the same people when they want to hire A-players. It depends on whether they fit the culture and have the right and needed expertise. It isn’t that we leave 90 percent of the population behind. That is absolutely true. The top 10 percent of those as defined by Kixeye is somewhat nonoverlapping with the top 10 percent whom SAP, or Google, or eBay, would be looking for. There is some overlap but we’re looking for people with the best skill sets who also fit into our team culture.

One aspect you pointed out in your talks that I really like is that C-players hire C-players, or maybe B-players hire C-players more often than A-players, because there’s this competition going on and they don’t really want to be overruled by someone who’s more skilled. The idea to hire A-players is to see how this affects the whole team and the team effort.

I’m glad you brought that up because that is the other aspect of A-players. You’re trying to maximize the productivity of the team that you have, but you also want that team to be a sustainable kind of organism. The best way to get an A-player is to have a group of A-players already. Because, first of all, that is very attractive for the candidate: “Wow, these guys are really amazing. I want to work with them. I affirmatively want to work with those people.” That is the first step.

The flip side of that is that the A-players are confident in their own skills; they want to work with other excellent people. The people who are currently on your team are affirmatively looking for people who are the best because they can learn from them and so on. A lot of being an A-player frankly is an attitude about learning—you know, about always growing; that is how you get there.

But sadly, it is true that A-players tend to hire other A-players, but like you brought up, B-players tend to hire C-players. The intuition there is that (whether consciously or unconsciously) there is a lack of confidence or an underlying fear about being overshadowed.

When I heard your talks on the Internet, it seemed you admired the Google way of hiring. Can you tell how the Google way differs from the “normal” way and why you prefer it?

Briefly, let’s start with Google’s goal. Google’s goal is to hire
A-players and only A-players. Imagine the hiring process as a sort of pipeline, and out the other end they want only A-players to be absorbed into Google.

Google is willing to have false negatives, but never false positives.

... A false negative is where they say, “Sorry, Randy, Google’s not a good fit for you.” And they’re okay with making a mistake, like, “Oh, actually Randy should’ve come, but we’re okay with making a mistake and letting him go potentially.” But they would never want to have a false positive, which is where they would hire Randy but Randy actually wasn’t a good fit at Google.

Everything about the process is organized around that goal. To start from the candidate’s perspective, the candidate goes through a very deep and detailed set of technical interviews.

I studied for weeks with an algorithm textbook before I did my Google interviews—and I’ve been doing this for a long time. It was well worth it because the technical interviews are very deep and very challenging. That is good for two reasons. It is a good filtering mechanism. But it is also a good demonstration or signaling of how serious Google is about engineering. Giving a tough interview to a candidate is a good thing from the perspective of filtering to see where the candidate’s strengths and weaknesses are. That is one value.

But the other value, which I think people underappreciate, is that you’re signaling to the candidate, “We’re serious about this position. If you come, here this is a great place to work, exactly because we put so much effort into the interview and it is so difficult.”

People like challenging things. That is why people like to play games like the games that we make at Kixeye. People love a challenge. Google is not intending to make it a game. I’m not trying to trivialize that. But there are two halves to this thing, and I think the second half isn’t as appreciated.

**What fraction of your time or your team’s time do you spend recruiting and hiring?**

We’re a 500-person company, and we have six full-time recruiters; it is very important. We put lots of effort on it from the whole company. For me and my team personally, we spend 10, 15, 20 percent sometimes. A decent chunk of time.

We spend a lot of time and effort evaluating candidates and making sure they’re good fits and also each of us leveraging our own networks to find people. We talked a lot about a detailed interview process, but the very best way to find if somebody is a good fit is to know them already.

Let me make a little bit of a joke. The standard hiring process is a little bit like you talk to somebody for an hour and then get married. That is crazy.

**Yes, it is.**

That is totally insane. The by far better way and the far more productive way for everybody involved is to have known somebody ahead of time. To take the analogy further, somebody whom you work with has already dated them for multiple years, already knows them really well, and knows that they’re going to be a fit.

We’ve had the best success, both in terms of interest of candidates coming to Kixeye and then for success for people once they’re here, from referrals of people who have worked with the candidate for a long time before.

There is no substitute for that. There’s nothing we can do in a handful of hours, no matter how many tests, no matter how objective we are, no matter how detailed or fast we talk. There’s no way we can substitute for, “Oh yes, I worked with this person for three years at this company, and here’s why she’s wonderful and here are her skills. Here are her strengths and weaknesses.”

**My next question is particularly important for me as a German, and maybe for all our listeners in Asia and Europe. Do you think the described techniques are contrary to cultures in nations other than the US? For example, if I, as a German, just because I applied for the first time at your company, would have a really hard time reapplying after six months, I think I simply wouldn’t do it. Do you think that this notion is wrong? Do you think**
that there are general aspects that apply to every country? When (if at all) do you think you have to adjust your techniques?

My experience is limited to hiring in America and particularly hiring in Silicon Valley. I am very open to the idea that not all of these practices are going to translate even across the United States, let alone across into Europe and Asia. So as to your point, I think I would be surprised if there weren’t differences globally.

Having said that, I think I also agree with the implicit last part of your question, which is, do I think that there are some universals? Absolutely I do. And looking for a team or cultural fit, looking for people who are motivated and have good communication and good collaboration, my suspicion is that those are universal qualities that make people successful. But [regarding] the details of how the process works, I would be surprised if we would not want to specialize those processes in Germany or in China or Japan or some other place. They should be different country by country.

But in my experience, hiring is hiring. I’ve worked at companies that were global and helped to hire people globally, but I would be surprised if there weren’t individual cultural differences. But I would also be surprised if the ideal process for finding someone in Germany or China or Japan to join your company would be entirely different from America. There’s clearly some overlap, but there’s clearly not 100 percent overlap.

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