PART FIVE

Music

We started this book by interviewing Tim O'Reilly because we felt that he covered a wide range of topics that we'd delve into later on. One of the things that Tim did was draw a parallel between teams of developers and how groups of musicians work together. That piqued our interest, and we wanted to dig a little deeper.

Tim: I have to say that my greatest weakness as a team leader, to be quite honest, has always been that I've always taken what's available and tried to make something of it, rather than an engineering approach—we need one of these, and one of these, and one of these—and building something out of nothing.

Jennie: That's actually my question. As you were talking, one of the things you said really resonated with me. The traditional way to handle deciding what you're going to build is getting everybody to agree on that upfront. It sounds like you're more interested in the discovery process, allowing people to come to whatever truth comes from the experience. How do you reconcile that?

Tim: Well, yes and no. It's a good question. It's so paradoxical, because it sounds like when you say whatever truth comes from the experience—that sounds very California and New Age. When I say "uncover the statue in the stone," it's really there. There's not more than one. Well, maybe there's a couple, but it's not like any old thing works. It's not like you can just go with the flow and do what you feel. There's an aesthetic vision that drives the process.

Jenny: So the leader has to carry that vision?

Tim: Yes, absolutely. You have to know what you're going for. And what you're doing is going back to the idea of humming a tune and getting other people to follow it. Well, there is an idea there of harmony. There is an idea there because there is a tune, and somebody can be off-key. It's not like everyone can go hum their own tune. This is the tune. Find it, converge. And that's the skill in bringing a creative team together.

Going back to the analogy of humming the tune, and having people learn to play it on their own instruments: if people are accomplished musicians, they can do that. Then they can actually start to elaborate on the tune, they can build on what you've done. But it starts what in open source what Eric Raymond calls a "plausible promise." There is an aesthetic vision there where people say, "Yeah, I get it, I want to be part of that." Then they can express their own creativity. And if you've done it right, you haven't overspecified, you haven't told people what to do or how to do it. You've just given them a vision of where you're going, and they find their own way there.

Andrew: OK, I've got a question. There are definitely some really skilled, really amazing band leaders. Like, say, Count Basie, who's famous for not using as much sheet music and charts, and really having musicians who work exactly like that. But I'm sure history is littered with the names of bands we don't know with people who tried to work like that and weren't able to. And that's one thing that we've seen a lot in software projects

specifically. You'll have really talented people, and a leader who's really smart and talented, yet the team has a lot of trouble getting software out the door.

Tim: And a lot of what I've done in my career has been to tell stories that help people to organize their own activity. So I'm a very non-directive leader or manager. In fact, I often joke that I'm kind of like the title character in the '50s musical *The Music Man*. You know the story, the guy was a con man who sold instruments, and said that he'd teach the kids to play music. But of course, he didn't know anything about music. He said he had this new system called the "Think System," where he'd hum the tune and the kids would figure out how to play it on their own instruments. And of course, it works out in the story; the kids do kind of figure it out, and it works out just in time to save him because he's fallen in love with the town librarian.

Andrew: Could you run a real band like that?

Tim: Well, you could, of course, if you had very skilled players. In fact, that's what jazz is all about.

Andrew: I guess you're right—that's pretty much how Count Basie ran his band.

Tim: A jazz band is the Think System applied. Somebody puts out an idea, and someone else picks up on it. I still remember, actually, when Jeff Bezos and I talked to various congressional people about the patent system. One of the congressmen, well known; we were trying to make the analogy of how invention works, and that it's a little bit like jazz. And he totally got it, because he was a big jazz fan. "Oh my God! What if all of those jazz riffs were patented, and you couldn't take them and run with them?"

So I think in a lot of ways that gets to the heart of something. If you have good enough people who are motivated and excited and skilled, you can in fact hum a tune and have them pick up and improvise on it. And that's what I've done through a whole lot of my career. That's not to say there isn't a lot of hands-on. But even that is in the form of storytelling. The team of editor and writer, for example, introducing a book: the way that I would often do it is that I would rewrite something and show them, and then they'd say, "Oh yeah, I get that now." As an editor, that's also how I'd work with assistant editors— I'd kind of demonstrate stuff, and they'd demonstrate back what they took away from me. And then, when I said, "Yeah, you've got it," I'd have less and less to do.

I know I've said two very contradictory things here, because I said "finding the statue that's in the stone," but I also said "articulating a vision that other people can believe in." One of those things sounds like there is the ideal form sitting there in the form, where there's only one. In the other, you can make anything out of anything. And the truth is somewhere in between. What it feels like from the inside, when you get it right, is like doing harmony in music. There are a lot of different harmonies possible, but you do have to converge on something.

So in some sense, I think that analogy is probably a pretty good one. There are some underlying things that make a situation work, that make it come together. That's something else that's a big part of my thinking—Alfred Korzybski, with general semantics: "The

map is not the territory." The map matches the territory. And when you create an aesthetic vision that somehow matches a territory, that somehow makes the thing more what it is, then you get people to follow you. And when you seed that moment, when you're able to articulate a vision, you get people to sign up for it. And together you build something that is true, and feels true.

As we were editing our interview with Tim, we felt that this one section really stood on its own, because it said something to us. We felt that it made a poignant statement about how teams can revolve around a single visionary leader, and that one leader can bring everyone together under an overarching vision. But he said something else that struck us: in a way, he erased the line between a vision for a project and an artistic vision.

We felt that these ideas needed more exploration. So we sought out an expert in how musicians work together, and we were thrilled that Tony Visconti could take the time to talk to us. Both of us have been fans of a lot of his work over the years, even when we didn't necessarily know that he was behind the music. Tony has spent his entire career figuring out how to get groups—teams, if you will—of musicians to work together.

We weren't sure exactly how this would turn out. But what really took us by surprise is just how much of what Tony said echoed many of the things that our other contributors said throughout the book. While you're reading this interview, keep your eyes open for them: see if you can spot ideas, sentiments, and opinions that reflect other things you've read over the past few hundred pages.