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Opening up open data: An interview with Tim O'Reilly

The tech entrepreneur, author, and investor looks at how open data is becoming a critical tool for business and government, as well as what needs to be done for it to be more effective.

The value of openness

We're increasingly living in a world of black boxes. We don't understand the way things work. And open-source software, open data are critical tools. We see this in the field of computer security. People say, "Well, we have to keep this secret." Well, it turns out that the strongest security protocols are those that are secure even when people know how they work.

Secrecy is actually, it turns out, a fairly weak way of being secure. And I think in a similar way, we have to understand who owns the rules, how are they driven, how are they guiding our behavior. And there may be cases where you say, "Well, actually it's a reasonable trade-off to have some degree of secrecy."

We have this with trade secrets all the time in the commercial world. But there are other areas where we should say, "No, we really need to know how this works."

A platform for innovation

It seems to me that almost every great advance is a platform advance. When we have common standards, so much more happens.

And you think about the standardization of railroad gauges, the standardization of communications, protocols. Think about the standardization of roads, how fundamental those are to our society. And that's actually kind of a bridge for my work on open government, because I've been thinking a lot about the notion of government as a platform.

So much thinking in government is around, "Well, we're going to build a program to solve this particular problem." But the most successful government programs to me seem to be platform kinds of programs. And I'm not talking about, "Oh, well, the government funded the Internet originally."

I'm talking about things like GPS. The fact is that this is a military program that, through a crucial policy decision, was opened up for civilian use. If this was still just for fighter pilots, we wouldn't have that Google self-driving car. We wouldn't have maps on our smartphones. And that's why I think this idea of a platform and the idea of a market go hand in hand so well. Because when you build a really powerful, effective platform, you do enable a market.

Defining open data

We should define a little bit what we mean by "open," because there's open as in it's open source. Anybody can take it and reuse it in whatever way they want. And I'm not sure that's always necessary. There's a pragmatic open and there's an ideological open. And the pragmatic open is that it's available. It's available in a timely way, in a nonpreferential way, so that some people don't get better access than others.

And if you look at so many of our apps now on the web, because they are ad-supported and free, we get a lot of the benefits of open. When the cost is low enough, it does in fact create many of the same conditions as a commons. That being said, that requires great restraint, as I said earlier, on the part of companies, because it becomes easy for them to say, "Well, actually we just need to take a little bit more of the value for ourselves. And oh, we just need a bit more of that." And before long, it really isn't open at all.

The role of regulation

We have this idea of a regulator as somebody who's kind of like a traffic cop writing you tickets, or a bureaucrat with clipboards. These are very, very 19th-century ideas of regulation. You look at anti-spam. This is totally a regulatory system for e-mail on the Internet. You look at credit-card fraud detection. This is a regulatory system that's been built.

And my question is, what does that look like for government? And I think it's one of the really big, important questions because we're already seeing it evolve in areas like traffic, as increasingly we're building sensors, whether it's cameras or GPS that could be harnessed. Insurance companies are starting to say, "Well, we'll pay your rates differently. But we have to be able to monitor your speed."

These things are going to be effectively regulating our behavior. And if we want to get ahead of that, we have to think very differently about what the regulatory system of government as a platform is.

Government as a lean start-up

Eric Ries, of *Lean Startup*¹ fame, talks about a start-up as a machine for learning under conditions of extreme uncertainty.

He said it doesn't have to do with being a small company, being anything new. He says it's just whenever you're trying to do something new, where you don't know the answers, you have to experiment. You have to have a mechanism for measuring. You have to have mechanisms for changing what you do based on the response to that measurement.

And that's one of the big things that we're trying to do at Code for America, to bring that lean start-up mentality to government, so that people say, "Oh yeah, we don't actually know whether this program is going to work. So let's do it in a way that we learn and we change as we go."

That's one of the biggest problems, I think, in our government today, that we put out programs. Somebody has a theory about what's going to work and what the benefit will be. We don't measure it. We don't actually see if it did what we thought it was going to do. And we keep doing it. And then it doesn't work, so we do something else. And then we layer on program after program that doesn't actually meet its objectives. And if we actually brought in the mind-set that said, "No, actually we're going to figure out if we actually accomplish what we set out to accomplish; and if we don't, we're going to change it," that would be huge. □

¹ Eric Ries, *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*, New York, NY: Crown Business, 2011.

Tim O'Reilly is the founder and CEO of O'Reilly Media. This is an edited transcript of his remarks.

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