



## Stanford eCorner

### Products Start as Maker Movements

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Every new technology starts with a maker movement, says Tim O'Reilly, founder and CEO of O'Reilly Media. The "maker movement" is actually a stage of the industry, says O'Reilly, and that people only forget this once innovations and technologies move into the mainstream.



#### Transcript

And the first thing you have to look at is the arc of new technologies. Every new technology starts with a maker moment, I mean, the Homebrew Computer Club, the early World Wide Web, everybody was rolling their own, right. And it turns into a big business. And so it's really important to understand the maker movement, first of all, as a stage of the industry. And it has this characteristic that as soon as it becomes mainstream people don't see it as maker any more. So a great example of this is multi-touch displays. I remember back in 2005 we were showing off at our ETech Conference, Danny Hillis' map table which was this giant table he built for the Air Force or the CIA or somebody that you could do all those things on. And then it was Jeff Han, 2006 he's there at TED and our ETech Conference showing his homebrew multi-touch display which actually later he turned into a company and sold to CNN when you see them up there doing their Perceptive Pixel display. But fricking 2007, it turns into an iPhone. Nobody thinks of multi-touch as a maker thing - it was only two years from being a maker thing to being in the hands of millions of people.

And I think we're going to see a lot of technologies that we call maker now, that'll just be like, hey, that's consumer electronics. So that's the first thing I would say there. But there are some very, very deep lessons in the maker movement. The first is this notion that I talked about here about how sensors are becoming part of everything and how hardware informs software and how it's going to change the nature of the interfaces when you have devices that actually have their own sensorium. So that's one. Then there is the other big wing, which is manufacturing being perhaps democratized in some profound ways whether it's through 3-D printing or whether it's through low-cost reusable hardware platforms, or whether it's through access to manufacturing in China. And then there's, I guess I would say finally this - what GE is calling the industrial Internet, which is applying all these principles to really big pieces of equipment. So, there's a lot going on there and it will have a massive impact on business; it already is.