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Kentaro Toyama: “Technology won’t fix broken institutions”

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innovation, technology

By Ben Miller

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Geek Heresy author discusses his belief that social change can’t come about through technology alone.



On Tuesday evening at the MIT Media Lab, the [Dalai Lama Center for Ethics](#) hosted a talk by Kentaro Toyama, author of *Geek Heresy: Rescuing Social Change from the Cult of Technology*, in which he laid out his thesis that technology, in and of itself, is not a force for positive change in the world, but “only amplifies the underlying human forces” already at work in a society.

Toyama, a professor at the University of Michigan and former head of Microsoft Research India, said he came to this conclusion through a long and difficult personal journey. With a background in computer science, he was trained to solve problems through technology. “I thought that more tech overall was somehow better.” But it was his time working for Microsoft in India that began to change his mind about the role of technology in social development.

“I worked on 50 or more projects [aimed at making a difference] and very often the solution failed at scale. The technology worked, but had no impact.” He eventually reached the conclusion that it was the social and cultural institutions—the human factors—surrounding a certain problem that prevented the technology from having the desired result. In order to get that result, the institutions themselves would have to be changed, something Toyama says technology cannot do.

“Technology doesn’t fix broken institutions, whether they’re corporate, educational, or something else. You could argue that technology amplifies existing inequalities.”

This was a message that resonated with researchers at the Tata Center, who made up a large chunk of the audience and are working on technological approaches to solving developing world problems with an increasing awareness about the importance of addressing the entire problem end-to-end, including social, political, and economic factors.

“He pointed out we already intuitively know, that technology alone won’t bring social change,” said Dr. Nevan Hanumara, the Tata Center’s Program Manager. “It requires direct engagement between the technology implementer and a skilled and committed partner. Technology is most likely to have a positive effect when augmenting and empowering existent people-centric efforts.”

Toyama quit Microsoft after five years in India, feeling that he needed to take a new approach to creating social change. He had some advice for a technology-minded audience looking to solve pressing global problems.

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“If you are really interested in social impact, start with no constraints on how you’re going to solve the problem,” he said. “In some cases we have to be willing to say no to technology.” He warned against crediting companies such as Apple, Facebook, and Google with being promoters of democracy, equality, and justice, noting that their ultimate goal is generating profit for their shareholders, and that this is reflected in the technologies they create.

However, he did acknowledge that there are ways to deploy technology for major impact. “Look for an existing social trend or organization that is already achieving your goal, and see if your technology can help them do it even more. If you want to reduce instances of malaria, find an organization that is already having success against malaria, and work with them.”

“[Global] change requires deep change in ourselves and our societies,” he continued, citing the United States’ wealth inequality as an example where a lack of technical knowledge is not the issue. “As a country we are not focused on the elimination of poverty. No amount of technology will change that social situation.” If we do focus our energy on the problem, he said, “then our technology will magically realign and begin amplifying these values.”

Said Hanumara: “As technologists, easily enamored with our creations, Toyama provided a sobering call for reflection. The true ‘big challenges’ lie not in the work that gets us our degrees, however challenging this seems at the time, but in ensuring that it has an impact!”

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