

Technology as an “Amplifier” of practices both good and bad

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*“Even in the world of abundant technology, there is no social change
without changing people.”*

– Kentaro Toyama in *Geek Heresy*

I recently read *Geek Heresy: Rescuing Social Change from the Cult of Technology*, by Kentaro Toyama, an ex-Microsoft employee. It’s an interesting book, with some useful insights about social change. But it’s also illustrative of many people’s confusion at this particular moment in time. Like a great many other people, the author, combines forward-thinking ideas about technology with highly old-fashioned ideas about education.

Toyama’s most useful idea is that technology serves essentially to “amplify” the intentions and actions of people. “Amplification” is Toyama’s big thought. What he suggests is that if the things people are trying to do are useful, and well-fitted to the audience being served, technology can amplify and extend their positive efforts. But if what the people want to do is not positive, technology can extend their wrong-directed intentions as well.

Toyama see himself as a “heretic” against the technocratic “orthodoxy” that just adding new technologies into social programs will change people’s behavior in positive ways. Most of us know that this doesn’t happen in education (just bringing in technology doesn’t change much) and so by making this important point Toyama brings a reality check to — and modulates — the widest-eyed predictions made by technologists about how technology — on its own — will cause social change. I think this is less a “heresy”

than a refinement. I also think Toyama is right in the short term, but wrong in the longer term. Over the long term, technologies have changed the world as much as people have, perhaps more.

Still, I believe Toyama is right to remind us that most social change — at least in a single lifetime — comes from, and is about, people. If “change agents” understand the context, and get the needed changes right, technology can and will amplify their efforts. If they get them wrong, technology will amplify their mistakes and show just how wrong they were. When people resist technology, Toyama points out wisely, it is not because they are resisting the technology itself, but rather the underlying concepts —technology amplifying the *right* concepts can be very powerful. But we shouldn’t assume one can just “go around” people and ill-advised change concepts by adding technology. Toyama rightly warns that context matters, and that just trying to scale-up “canned” technology interventions for social change typically leads to failure.

Applying this to Education

Education is the first example Toyama uses to support his position. He points out that “One Laptop Per Child” produced “no educational advantage” in Peru; “technology never made up for a lack of good teachers or principals” in India; and that “schools have problems maintaining technology and using it meaningfully” in the US., and concludes that it is the “human” side of “good teaching” — and not technology — that is needed. It is certainly right, I believe, to think that the human side matters in education, but it is wrong to deny that technology does too.

I wish Toyama were a lot more of a “heretic” in education. Unfortunately, he buys totally, into the now-beginning-to-fade paradigm that education is about “learning,” measured through tests and grades, that educational improvement means that kids are getting better grades within the system, and that whether those grades go up or down — and pretty much that alone —measures whether their education is succeeding and/or improving.

My View

I believe Toyama’s concept of “technology as an amplifier” applies to education — but perhaps in a different way than he imagines.

Toyama’s argument is that technology amplifies the intentions and actions of people. So if people are doing education wrong — and they are — adding technology should make it that much more wrong. And that is precisely what we are seeing. The old educational paradigm — i.e. “learning and personal achievement,” is today working less and less well everywhere. Adding technology has principally served to amplify all its bad points, such as endless explanation, and “drill and kill.”

But the world’s paradigm for education is, I believe, changing. We are moving to a new paradigm of “becoming and real-world accomplishment.” And technology I believe, can and will strongly amplify this new paradigm in a far more positive way. Technology will, for example, help all young people know themselves better, and connect far more easily to jobs and careers with which they fit. And with the connections and empowerment that technology adds it will become easier and easier to find ways for students to achieve meaningful positive results in the world.

So these are my thoughts after reading Toyama’s book:

Viewing technology as an “amplifier” of our own (and of our students’) intentions is a useful perspective, one that I suggest we all consider.

But just going “back to people” — such as “better” teachers and principals, doing things the old way, even on a more customized and individualized basis — will not solve our problems in tomorrow’s world. Technology, by itself, does not do the whole job of educating, but education is becoming harder and harder to do well at scale without technology’s amplifying power.

The world is currently on the cusp of two very different paradigms of education: “learning and personal achievement” vs. “becoming and real-world accomplishment.” More and more students and educators find themselves, frustratingly, between them. The biggest And most fundamental change needed for the future is for all to move quickly to the new paradigm — i.e. to a new perspective and understanding of what education is.

For us to continue the old belief that education is fundamentally about “learning and personal achievement” is, essentially, wasting our children’s time, and amplifying the old with technology accrues no benefit. But our kids will benefit hugely from technology that amplifies the new educational paradigm of “becoming and real-world accomplishment.” Whatever educational technologies do this well will be a tremendous boon — to our kids and to the world.

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