

*spotlight on*  
**POVERTY and OPPORTUNITY**  
THE SOURCE FOR NEWS, IDEAS AND ACTION

**A Brave New World for Everyone**

Elisabeth Mason, Stanford Technology, Opportunity, and Poverty Lab

In 1882, Thomas Edison's power station provided electricity to a few commercial blocks in lower Manhattan. Four years later, Karl Benz patented the gasoline-powered combustion engine. Edison's innovation kept the lights on in New York City's financial center, one of the wealthiest commercial enclaves in the world; Benz's automobile offered a fancy alternative to the horse and carriage for those who could afford it.

It took a couple of decades for the car to have widespread impact on American households, via mass production of affordable options such as the Model T. It took longer still for the benefits of electricity to reach underserved communities, as epitomized by the rural electrification efforts of the Tennessee Valley Authority in the 1930s.

The moral of the story is that technology can provide radical change, but it takes deliberate forethought and coordinated effort to bring that change to all levels of society. Bluntly put, technology, left to its own devices, generally remains a rich man's toy.

So too today. Despite the groundbreaking improvements in personal technology over the past generation – arguably the most radical in a century – the fruits of innovation are disproportionately enjoyed by the wealthiest among us. A [recent survey](#) of those who use the ride service Uber over other forms of transportation revealed that the typical Uber-using respondent was nearly twice as wealthy as the average American. Similarly, a [study of Amazon Prime shoppers](#) showed that they were, on average, 25 percent better-off than the typical Walmart customer, who buys her goods the old-fashioned way, in a (physical) shopping cart.

It is past time, therefore, that we purposefully deployed technology to reduce poverty and create opportunity, rather than haphazardly hope that a rising technological tide will (eventually) lift all boats. Indeed, the consensus increasingly is that a *laissez-faire* approach to new technology will exacerbate inequality, not reduce it: advances in artificial intelligence and robotics clearly bode ill for the short-term prospects of unskilled and semi-skilled labor, and perhaps even for the long-term prospects of the majority of us who depend upon work for a living.

However, the opposite is also true: technology, properly harnessed, can for the first time in history eradicate the barriers that have separated rich from poor. If we devote half as much thought to how we could use technology to help the poor and reduce inequality as we do to thinking up the next profit-making Internet behemoth, we could create unprecedented change on a global scale.

A few examples of actual programs suffice to make the point. Think, first, of education: the advent of mass schooling was an enormous improvement over a system in which a very few children enjoyed virtually one-on-one tutoring and most others barely learned to read. But the downside of mass education is that it forces different kinds of learners into a one-size-fits-all model of schooling. And even children who might thrive within this conventional model stand little chance of success if they are trapped in underperforming schools with uninspired teachers.

The advent of Internet-mediated learning makes this model of education potentially obsolete. Students can now find online content that both suits their style of learning and provides a standard of education comparable to that of top schools. Most famous among these perhaps is Khan Academy, a not-for-profit online service that provides free lessons on a variety of academic subjects. Khan Academy and its ilk are effectively 21st century private tutors for any child with an Internet connection. Properly marshaled, these resources can help children in poor communities escape the geographical strictures of under-resourced schools and neighborhoods, and help break the cycle of poverty that these lack of resources perpetuate.

*spotlight on*  
**POVERTY and OPPORTUNITY**  
THE SOURCE FOR NEWS, IDEAS AND ACTION

Next, imagine if lower-income communities had access to information about their financial, educational, and health care options in the same way that high-income families take for granted. Lowering the barrier of these "information costs," is easily done in this era of Internet communication and Big Data. Not-for-profit organizations such as the [Family Independence Initiative](#) have shown that low-income families are perfectly capable of social advancement when armed with the requisite data and ability to mine and exchange information about financial best practices.

Money may not buy happiness, but it does remove the obstacles that stand in the way of the path out of poverty. Hitherto money was among the *only* means to deal with them—a cruel irony, since money, by definition, was what the poor lacked. But now, for the first time in history, technology can begin to mimic the effects of wealth in terms of information and access to resources—provided we take the time to cultivate technology investments for that purpose.

Think, finally, about the innovations we now see that seem the stuff of science fiction, yet are on the cusp of commercial viability. We can now use [three-dimensional printers](#) to create food. It sounds like something out of Star Trek. Predictably, the focus thus far has been on how such machines could revolutionize gourmet kitchens. But imagine the greatly more revolutionary applications it might have for addressing famine and food shortages worldwide.

Technology can be a force for good or ill. We can harness it to our collective advantage, or we can sit back and let it run its course, hoping it will be a helpful tailwind even though it might prove to be a devastating hurricane. We have reached a turning point in our technological capabilities, where world-changing forces are unleashed at the flick of a switch or a swipe of the screen. We must seize the technology now in our grasp, or risking seeing it seize us.

*Elisabeth Mason is the founding director of the Stanford Technology, Opportunity, and Poverty Lab. The opinions expressed herein are her own.*

The views expressed in this commentary are those of the author or authors alone, and not those of *Spotlight*. *Spotlight* is a non-partisan initiative, and *Spotlight's* commentary section includes diverse perspectives on poverty. If you have a question about a commentary, please don't hesitate to contact us at [commentary@spotlightonpoverty.org](mailto:commentary@spotlightonpoverty.org).

You can also sign up to receive our weekly newsletter and other updates [here](#).