of Wikipedia. Students with behaviorial challenges are more distracted by video games" (p. 117). The proper way to use computers to reduce inequality is to invest primarily in the people in the schools—teachers, administrators, and support staff—by training them to use the computers well. That is, you need not upgrade the technology, but you must "upgrade" the people.

The latter part of the book discusses the research about how best to invest in people. Chapter 8 discusses Maslow's hierarchy of aspirations in detail. Chapter 9 investigates mass intrinsic growth, or how entire societies have changed to solve societal problems. Chapter 10 discusses the importance of mentoring.

I don't know if Kentaro Toyama is a Christian or not, but the attitudes and recommendations of his book certainly should resonate strongly with a Christian audience. His recommendation to invest primarily in people, not technology, aligns with biblical themes that stress the importance of relationships. Toyama uses Christian terms, such as "idolatry," "discernment," and "wisdom" periodically in the book. For example, when criticizing technological utopianists for their indiscriminate application of technology rather than careful investment in people, he states, "To do so [...] is to make an idol of the easy part and neglect the rest—the finding or nurturing of the right heart, mind, and will" (p. 112).

And, of course, the entire premise of the book should resonate with Christians who see themselves called by God to be agents of change in the world. Christians are just as likely as non-Christians to look for quick, prepackaged solutions to the social ills we are called to address. Instead, Christians should concentrate on investing in people (i.e., loving), perhaps using technology where appropriate to assist along the way.

This book has caused this reviewer, a Christian and a computer science educator, to re-examine his work in computer science education. *Geek Heresy* has shown me that my work to build and widely deploy a better mechanism for computer science outreach programs in middle schools and high schools will necessarily fail if I do not invest heavily in the training of the people (i.e., the middle and high school teachers) who would be the partners, working with the students to learn computer science.

The book's title may be a little deceiving. Its topic is applicable and important not only for those in the tech industry, but also for any person seeking to work to restore shalom in the world. I recommend that international development organizers, relief workers, educators, and preachers should all understand the lessons from this book.

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Letter

Important Development Concerning the Impact of Fracking

PSCF published Bruce Beaver's piece, "Should we Frack?," in its latest issue (*PSCF* 67, no. 3 [2015]: 175–87). A number of articles have indeed blamed fracking for polluting ground water or creating mini-earthquakes, including those by the *The Economist* (see, for example, the issue July 4–10, 2015). Most people do not know that there is a more recent, alternate fracking technique that has proven to be more effective, is of much lower cost, and does much less damage to the environment. The technique uses a solid propellant, sent down the hole, which undergoes controlled deflagration shortly after shape charges perforate the horizontal section of the casing. The two major advantages of the process are that (1) it avoids the use of millions of gallons of pressurized water, and (2) it requires only 2–3 operators working for half a day, as opposed to hydro-fracking in which 25 operators are needed for 2–3 days, to produce the same amount of shale gas.

The propellant used is ARCADENE 489 (used in Stinger missiles). It is ignited circumferentially and produces gas at a specific rate to cause multiple fractures without entering the explosive regime. The deflagration is stable and environmentally safe, leaving no combustion products which may be harmful to the formation.

The process has been used successfully by Halliburton in over one thousand wells, producing more shale gas over a longer period than a comparable hydro-fracking technique. It causes no well bore or casing damage. A software using finite element analysis is employed to select the proper size of the propellant to meet the specific requirements of the formation to be fracked.

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