

“Will Computers Take Over Humanity to Produce Spiritual Machines?”

I would appreciate hearing your views on *The Age of Spiritual Machines* by Ray Kurzweil. If you've not yet seen it, this is a rather disturbing book which was brought to my attention at a recent dinner I attended on campus last month. During the dinner conversation I heard discussion between Dr. Rita Colwell (Director of the National Science Foundation) and Larry Smarr (Director of the National Center for Supercomputing Applications) that really took me by surprise. To hear some of today's most influential scientists discussing the reality of software taking over humanity within the next century was a more than a little disturbing. Their consensus seemed to be that “the software takeover is inevitable.” The discussion was prompted by a recent article by Bill Joy in *Wired* Magazine titled “Why the Future Doesn't Need Us.” You can read the article online at <http://www.wired.com/wired/archive/8.04/joy.html> (Bill Joy is the cofounder and Chief Scientist of Sun Microsystems).

I'd really appreciate some clear thinking from a Christian-minded perspective on this subject.

Thank you for your e-mail about “The Age of Spiritual Machines.” I have not read this article by Ray Kurzweil, but plan to do so in the future. That is an ominous statement about software taking over humanity.

In the meantime, I thought I might forward a portion of my recent book on a related subject. In *Moral Dilemmas*, I have a chapter on technology and address the issue of computers and the computer revolution. Here is section I wrote on the interface of computers and human intelligence:

Fourth, computers should not replace human intelligence. In *The Society of Mind* Marvin Minsky, professor at the Massachusetts Institute of Technology, says that "the mind, the soul, the self, are not a singly ghostly entity but a society of agents, deeply integrated, yet each one rather mindless on its own." (Richard Lipkin, "Making Machines in Mind's Image," *Insight*, 15 February 1988, 8-12). He dreams of being able ultimately to reduce mind (and therefore human nature) to natural mechanism. Obviously this is not an empirical statement, but a metaphysical one that attempts to reduce everything (including mind) to matter.

The implications, however, are profound. Besides lowering humans to the material process, it begins to elevate machines to the human level. One article asked the question, Would an Intelligent Computer Have a "Right to Life?" (Robert Mueller and Erik Mueller, "Would an Intelligent Computer Have a 'Right to Life?'" *Creative Computing*, August 1983, 149-161). Granting computer rights might be something society might consider since many are already willing to grant certain rights to animals.

In a sense the question is whether an intelligent computer would have a soul and therefore access to fundamental human rights. As bizarre as the question may sound, it was no doubt inevitable. When seventeenth-century philosopher Gottfried Wilhelm von Leibniz first described a thinking machine, he was careful to point out that this machine would not have a soul—fearful perhaps of reaction from the church. (Danny Hillis, "Can They Feel Your Pain?" *Newsweek*, 5 May 1997, 57). Already scientists predict that computer intelligence will create "an intelligence beyond man's" and provide wonderful new capabilities. (Robert Jastrow, "Toward an Intelligence beyond Man's," *Time*, 20 February 1978, 59). One of the great challenges in the future will be how to manage new computing power that will outstrip human intelligence.

The Bible teaches that humans are more than bits and bytes, more than blood and bones. Created in the image of God, human beings have a spiritual dimensions. They are more than complex computers. Computers should be used for what they do best: analyze discrete data with objective criteria. Computers are a wonderful tool, but they should not replace human intelligence and intuition.

Thanks for writing. I will continue this discussion in the future.

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