

Kevin Kelly Out of Control

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[Kevin Kelly](#), Executive Editor of [WIRED](#), is a would-be god who wishes we all would be gods, and has written a book about "godhood" for our instruction. *Out of Control: The Rise of the Neobiological Civilization* (Addison-Wesley, 1994), which has just been re-issued in paperback. Its often contentious argument is nothing more and nothing less than that we may now take as much apparent advantage from being out of control as we once did from being in control -- both of which may strike one as presumptuous, especially since our form of "control" is seen in the rise of technology toward "cybernetic holism."

Kelly is very persuasive. One is immediately impressed by the wide-range of his learning, and directly seduced by the readability of his romantic prose. Nevertheless, his provocations may have been written by the Devil of Technology for all their amazement and contradiction. The sub-title itself suggests the biological, while "Neo-Biological" better refers to robotics among other non-organic operations, or in Kelly's own words, "The complexity of built things now reaches biological complexity" (p.182). What one is finally persuaded is that this is a book projected through the power of personal and religious revelation, and ought better

to be read and comprehended as "Kelly's divinations."

Kelly's "techno-transcendentalism" suggests technological advance can be seen as part of a greater revelation beyond logical, articulate, scientific control. More importantly, the physical technologies themselves are part of an emergent nature, life, consciousness and being which ought to be included and respected as profoundly animistic or spiritual. Hence, the more we "humanize" technology and acquiesce to technology, the more we can revel in the spiritual life, the more we can adopt godhood, and the more we can gambol out of control.

On the dust-jacket of *Out of Control* [Stewart Brand](#) typifies your writing as "Actively shaping the intellectual implosion." How would you describe the "intellectual implosion?"

I asked Stewart what he meant by that because I wasn't sure. The "intellectual implosion" is an odd [term] but I think what he's thinking of is this shift in the pivot of our culture from the literary to the sciences, the technologies. Stewart called that "implosion" for some reason.

I thought that he might mean just simply the intellectual in cyberspace, cyberspace being a kind of implosion?

I don't think that's what he meant, but I think the reason why the cultural centre has moved is because we are finally making computer technology which is of sufficient complexity that we are able to ask the kinds of questions the humanists have asked for a long time in a different way. Whereas the questions of the past, "What is life?", "What are humans for?", "What is reality?" -- or the kinds of questions we used to have to ask just like this, sitting in a room, talking to each other, philosophizing -- now we can actually ask them by trying them out, by experience and experiment.

If I want to have an interesting conversation I probably wouldn't talk to a novelist, I would talk to a computer scientist. The most interesting people talking about the economy right now are hardly even economists, they're --

-- cognitive engineers? --

-- Or people who are trying to replicate an economy world: Game Designers. -- who probably have more to say about the economy than anybody else.

Who were you influenced by?

I was tremendously influenced by Thoreau, [which] is why I call myself a "Techno-Transcendentalist." And I was compelled to spend ten years in Asia, instead of going to college, and read Walt Whitman's *Leaves of Grass*, which instilled in me sort of an urge to travel. I'd have to say that Stewart Brand's [Whole Earth Catalog](#)[?][please check if you can, and if not, substitute with "writing"] was a big influence about thinking about whole systems. Ghandi was a tremendous influence in my spiritual life. I have a very devout Christian faith.

Your ideas and arguments in *Out of Control* are complex, articulate and important, but they require a traditionally-educated audience with an ability to sustain attention over a length of time. Who do you see as your ideal audience?

I'm sad to say that [with] certain aspects of [*Out of Control*] I tried very hard to communicate, but basically I was communicating to a small circle of friends, people [who] I knew and was trying not to bore by telling them things that they had not heard before. So it may be a very small circle.

It's a dialogue with myself, like most books. I'm talking to people like myself who have grown up with technology, who are perhaps reconsidering whether technology is a good thing or not. Ultimately, I think my book is a handbook for wannabe gods; it's about godhood. It's about how to be a good god.

Would you be surprised to learn that your book is a great favorite among our politicians in Canada? It's my opinion that *Out of Control* ought to serve as a pivotal discussion piece concerning emergent politics, whether post_humanist, electrocratic or neo-luddite. How would you describe your politics?

I'm terribly apolitical. I don't vote on party-lines. I probably have some leanings that are libertarian, but not entirely. I'm communitarian in some aspects. I would say it's a mixed bag.

And yet for the ideas in your book to come to full fruition would require a revolution in political thinking.

I'm not a revolutionary, and I don't even advocate revolution. I think revolutions are a product of industrial revolution and they're not very good models for thinking anymore. What happens is that we have exponential growth in things where the number of connections increases, and then what happens at certain times is that there are flips into something very different. We can call that a "revolution" but I think "revolution" is too strong a word, and used too freely. I'm not comfortable with it.

And so you talk about the evolution of technology as taking place more "organically?"

Very incremental change, over time, with periods where there's not much happening at all and periods where a lot happens, and periods where things flip over into entirely new phenomena.

In terms of politics, I think the general drift of politics is towards massive de-centralization. This does not eradicate hierarchies of control at all. Studies looking at how these really large complex systems work show that you need to have a cellular-like organization where you have a bunch of little tiny agents and they form a group, a cell, an organic cell, and those bunches of cells form a tissue, and tissues form an organ; and so it's a biological model; it's federalism in some respects [smiles].

Could you please comment upon your ethics, and by extension, the ethics of neo-biological culture?

I think humans are pretty wrapped-up in our evolutionary history -- how we evolved from animals. And we have a lot of tendencies in us that are due to the fact that we're animals. The only reason that we're not more animals is that we are moral creatures. We make moral decisions that come out of our minds and our hearts. This distinguishes us. [But] I think it is really dangerous to have a theology or ethics based upon biology.

Then how would you explain your distinctions between "natural evolution" and "artificial evolution"?

Natural evolution means lots of different things. There are three or four different processes that we have in mind when we use the word "evolution." We talk about the evolution of music, the evolution of library science. You can talk about the evolution of a horse from an earlier proto-horse, and that has a much more biological sense [due to the] biological principles in an evolving organism. Then we can talk about evolution that means specifically natural selection, the Darwinian view, which is inherited change, mutation and selection. There are a variety of different kinds of evolutionary processes of which natural selection is only one. There are other evolutionary processes operating.

So you are [neo-lamarckian](#)?

I call it "Post-Darwinism," which means that Darwin was right as far as he went, but he didn't go far enough. That is not to say that natural selection is not working, it is working tremendously. Natural selection is in fact so powerful that it can work in machines as well. Some people would call that "artificial evolution" or "artificial selection," but we have to be careful because in some ways what a pigeon breeder does or what a farmer does, or what a rose grower does -- you can say "artificial evolution" in the sense that they are artificially directing [evolution].

And it's technological too.

And it's technological too. My point is that there are lots of words that mean lots of different things, and so I use the term "artificial evolution" to mean "artificial-natural evolution" and "artificial-artificial evolution."

But while there may be no limits to evolution, there are limits to growth in every area of the natural and the artificial. What do you see as comprising the practical boundaries of neo-biological civilization, if you see any practical boundaries?

This is an interesting question. Part of my book is about the study of the differences between closed-systems and open-ended systems. Open-ended systems are about what godhood is about. An open-ended system is one where you begin something and the longer that system

runs, the bigger and bigger [its creation gets]; it's making a bigger space into which the next version of itself can move.

And more complex as in [complexity theory](#)?

Well it's sort of like this: if we look at the history of human thought in general -- maybe writing in books -- there is a sense in which each time a book is written it makes a space for some other new books to be written in-between it and the last book that was written. There is this ever-expanding realm of ideas where each idea -- rather than sort of being a win/lose situation where a new idea means the death of an old idea -- suddenly gives room for two other new ideas beyond it. That's an open-ended universe. The world of thought is an open-ended universe, because each new thought expands the space in which new thoughts can occur.

Life is exactly the same thing. So each new species of life creates a "possibility-space" for other new species to live in. You can see this in a rainforest: once the pitcher plant is made it suddenly creates an environment where insects can go inside, and those insects will create a [space] for other new insects. So we have this open-ended universe where life begets more life, life increases the conditions in which life can live.

At the conclusion of the interview I asked Kelly if he would autograph my copy of *Out of Control*. Kelly wrote, "Onward to Post_Humanism!"