July 26, 2013

Dear [illegible],

Thanks for your interesting letter of 5/29/13, which I received on 6/5/13. I'm sorry I've taken so long to answer it, but I'm working on a new book; and work on the book itself, plus extensive correspondence with the people who are involved in the book project, takes up so much of my time that I can't keep up with my other correspondence. I can answer only the best of the letters I receive from new people, and my answers to those tend to be long delayed.

Fifteen years ago I might have agreed with many of the ideas you express in your letter, but I've learned a lot since then, and I've further digested what I already knew at that time, so I now see things somewhat differently. Here I will give only some brief indications of answers to the issues you raise, not only because I'm so short of time, but also because I think you would have formulated the issues differently if you had read the new book I'm working on. In that sense, part of my answer to your letter will be in the new book, which should be available within a year, at most.

For now, I'll say this in response to your letter:

- I'm not at all certain that we will soon run out of fossil fuels. See Charles C. Mann, "What if we never run out of oil?", The Atlantic, May 2013, pp. 48-63.

• If fossil fuels do become scarce, and therefore more expensive, it will become profitable (a) to deploy "alternative" energy-conversion technologies to a far greater extent than is done today; and (b) to invest far more than is currently invested in developing new, "alternative" energy sources. Hence, our supply of energy may not decline after all.

• No matter how much energy becomes available from new sources we will always be facing energy shortages, because no matter how much energy is provided, the system always expands rapidly until it is using all available energy -- and then it demands more.

• There will be a higher price to be paid for energy from "alternative" sources than most people currently realize. For example: When sunlight comes to constitute a major energy source, solar panels will cover much, eventually perhaps all, of the land that is now wilderness or semi-wilderness, making it uninhabitable for biological organisms. This is already happening: An area of the Mojave Desert is being covered with solar panels, effectively destroying part of the habitat of certain threatened species. Wind farms kill birds, which fly into the "propellers". It is even believed that some species of raptors will be wiped out by wind farms. Raptors play an important role in controlling rodents, so without raptors more pesticides will be used ... etc. In addition, the development of wind farms entails the creation of radioactive waste, because the lightweight permanent magnets used in wind-powered generators require neodymium, neodymium commonly occurs together with radioactive thorium, and when you mine neodymium you're faced

with the problem of what to do with the thorium.

- Even if we are confronted with a declining supply of energy, that won't severely retard technological progress, because it will become increasingly profitable to invest more and more in the development of less and less energy-intensive methods of performing technological tricks. Such methods will therefore be developed.
- I agree that the human population will begin to decline, but not primarily because of a shortage of energy. Rather, more and more people will become superfluous because it will be increasingly profitable to replace them with machines.
- Because of the replacement (perhaps eventually the total replacement) of humans by machines, there will be no problem about "sustaining the current fine level of granularity" in the division of labor.
- I no longer think that Ellul's "indestructible, total civilization" is a possibility. On the contrary, I think the technological system will eventually destroy itself as a result of desperate competition among its component parts.
- So why strive to bring down the technological system? Because if the development of the system is allowed to proceed to its logical (and self-destructive) conclusion, it will have ravaged the Earth so thoroughly that we will be left with a planet uninhabitable for all of the more complex forms of life. The system has to be destroyed before it destroys the planet.

All this will be argued in the new book.

I wonder whether you've read Ray Kurzweil's The Singularity is Near. A lot of it is science fiction and/or wishful thinking, but Kurzweil is clearly right about some things; notably, about the fact that most people fail to take fully into account the continual acceleration of the rate of technological progress. (E.g., of progress in the development of new energy sources.)

A small group of us are working at the creation of an anti-technological organization, and I think maybe you could be of great help to us. If you think you might be interested in joining us, please send me your email address, and at an appropriate time we'll contact you. If you do join us, you'll probably get a preview of a large part of the new book.

Yours,
Ted Kaczynski