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Are We Turning Into Machines?

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In his 1936 classic *Modern Times*, Charlie Chaplin alerts society to the dangers of excessive automation.

There is a famous scene where the Little Tramp is put to work on an assembly line and, after tightening screws for a long time, can't stop repeating the turning motion.

The movie's point is that modern industry is all about efficiency and output, with little concern for the workers. Chaplin saw rapid industrialization turning us into robots, triggering a massive dehumanization of society.

Fast forward 80 years. Although many of the automated operations in heavy industry are now performed by actual robots, the human integration with technology has moved from work at the factory to our individual lives. Granted, it's not about assembly lines anymore, although those are still out there. If Chaplin were to remake *Modern Times* today, perhaps his concerns would shift to our individual integration with machines — and to what this integration means to society as a whole.

Most people can't live without their smartphones. (I'm actually amazed that "smartphone" is a sanctioned word as I'm typing this.) In a very real sense, your smartphone is an extension of who you are. The apps you choose reveal your tastes and preferences, almost like a fingerprint of your personality. Connectivity is everything. If, God forbid, you forget your smartphone at home or lose it, desperation sets in. There's a feeling of loss that's hard to shake off. But loss of what, exactly? That's the funny part. I speculate that loss here is loss of a part of you; that you are already so integrated with this technology that it *is* you, a digital extension of you.

I'm guilty as charged, by the way. This is no diatribe against the ills of modern technology. Nevertheless, I find it crucial for us to reflect upon what's going on in real time, just as Chaplin did with his masterpiece movie. We are changing as people. Children are changing much faster than adults, being exposed to the new technologies at a young age. Adults adapt; children absorb. To them, this is what normal life is like, a seamless integration with digital machines. To fight this change is, in my opinion, pointless. This is how society functions now.

The trend will continue. Increased human-machine integration will be the norm: self-driving cars, as I wrote here last week; perception-enhancing machines; virtual-reality immersion devices; etc. This is happening right now. There are countless benefits to all

of this, to be sure. But there is also a danger: that we forget who we are when we turn the power off.

The challenge we face is to keep a healthy balance between power-on life and power-off life. The machine-human integration is greedy, as it serves a powerful combination of our desire to expand our reach and of market forces that want to sell us their products, with ads blinking on screens at all times.

The temptation is to let go of the power-off mode of existence, calling it "antiquated." But our power-off mode is surely much more than just that. Humans have been in power-off mode for tens of thousands of years. Power-on mode is a very recent invention. We evolved to be integrated directly with our natural environment; that's where our normal faculties and sensorial abilities come from. To forego our natural evolutionary past is to forego an essential part of our humanity: It's to let us become something we are not.

My co-blogger Adam Frank rightly wrote yesterday about the importance of connecting with the sky in real time, directly, without screens in between. There's something viscerally powerful about feeling the world straight-up, with no intermediaries of any kind. To forego this feeling is to forego an essential part of who we are. It's to become something we know very little about, a creature unable to feel the world where it lives, a creature that would fall defeated without a battery charger and an outlet.

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