

# What Happens When Someone Builds A 'Hitler Robot?'

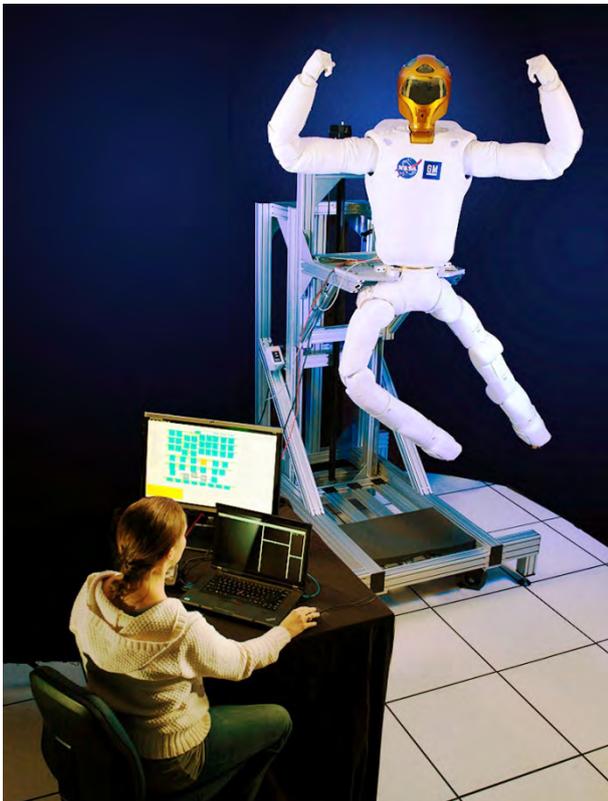
*Aviation Week*

*Frank Moring, Jr.*

By coincidence, my bedtime and subway reading material these days is a pair of dystopian novels that cast today's technology forward in time to some pretty scary places. Don DeLillo's *Zero K* looks slightly ahead to a day when the wealthy have themselves and their loved ones frozen, in the expectation medical knowledge will advance to the stage that future physicians can help them live forever. *Arcadia* by Iain Pears imagines a future world where "the idiots of the early period of exploration had filled near space with so much debris that they had created a new asteroid belt, all but impossible to get through."

The results are a multinational bunch of unhappy billionaires, and an anti-Arcadia where "there are 35 billion people in the world," unable to escape to other planets, who live "miserable and pointless" lives under the totalitarian rule of a scientific elite.

A different sort of elite was on view May 18 at The Washington Post. The newspaper bought by Amazon founder and Blue Origin owner Jeff Bezos was inaugurating the conference center at its newly completed headquarters in downtown Washington with a public symposium on "transformers"—individuals working in science, engineering and business who are pointing the way toward the future, which seems to be arriving at an exponentially accelerating pace.



*Credit: NASA/Johnson Space Center*

In this crowd, the spaceflight panel—NASA Administrator Charles Bolden; Virgin Galactic CEO George Whitesides; Julie Van Kleeck, Aerojet Rocketdyne’s advanced space and launch veep, and Andy Weir, who dreamed up the best-selling *The Martian* in his spare time—seemed almost quaint as they described the next steps in human space travel.

For visual impact, my favorite panelist was Neil Harbisson, a color-blind British artist with an antenna implanted in his head that drapes over his forehead and allows him to sense colors via the Internet. Sharing his panel was Sheila Nirenberg, a Cornell University neuroscientist and MacArthur Fellow who is using neural coding to develop a prosthetic eye designed to treat blindness with brain implants.

Arati Prabhakar, the director of Darpa, outlined her agency’s “Next Generation Social Science” project, which uses the “massive availability of data” and new methodology to answer “questions that have been dead ends in social science for a very long time.” One of them is “what are the key factors in collective identity formation?” If I understood correctly, another way to ask it is what makes someone consider themselves Chinese, Russian, American . . . or a holy warrior?

Graduate students at Harvard’s Institute for Quantitative Social Science took a similar tack in analyzing Chinese social media posts that the government decides to censor. It turns out Chinese citizens can say pretty much whatever they want online, as long as they don’t use the word for “protest.” Gary King, the institute’s director, was a little vague on where he got the before-and-after Chinese website postings, but he used the example to illustrate how mining “big data” can answer questions by highlighting unexpected correlations. That could be a huge benefit when applied to health records, perhaps, or climate data, but it is also a potential problem.

Journalist James Bamford, an expert in government surveillance, has reported that the National Security Agency is developing a \$2 billion facility in Bluffdale, Utah, to store the flood of communications data it collects daily, until it can be mined efficiently for real intelligence. That sounds a little bit like DeLillo’s deep-freeze for dead people, but it is also a serious privacy issue, and not a little dystopian in its own right. How far should governments go with technology that has the potential to be a valuable tool—and also a nightmare?

“Are there going to be privacy violations?” asks King. “Yes, absolutely. That is something to worry about. But at the same time that we worry about that, don’t forget the good. Would you all be willing to give up some of your privacy to live 10 years longer than your life expectancy? Ask yourself that question, because it’s not an unrealistic question. And it’s not just live longer than expected. It’s live happier lives. It’s live more convenient lives.”

Of all the Post’s transformers, United Therapeutics Corp. Chairwoman Martine Rothblatt—who helped launch the private satellite communications industry as a lawyer for PanAmSat—probably pushed the envelope most in her presentation to a “brave new world” we might not want to visit. Her company is developing genetically modified pigs to grow replacement organs

for transplantation into humans, and has ordered 1,000 delivery UAVs to take fresh hearts, lungs and kidneys directly to hospital roofs before their shelf lives expire.

She also raises the possibility of “cyberconsciousness”—a variation on DeLillo’s scheme that uploads human consciousness onto the cloud in a kind of silicon immortality that can be downloaded to drive robots. The robots would not just be intelligent, Rothblatt says, but ultimately human in a legal sense.

In an era when governments and the private sector are considering autonomous weapons, that could be the ultimate dual-use technology. A robotic helper, such as NASA’s Robonaut 2 (see photo) could also become a killer, or worse. But Rothblatt says she isn’t very worried.

“All of these robots that are being developed are being developed in an environment which, even though it is humanmade—our socioeconomic system—it is still much like the natural environment,” she says. “It’s just [that] us humans are the selection factors. So the laws of Darwinism still apply, and [with] the so-called bad-robot problem or the Hitler-robot problem, there is going to be nobody who wants to buy [it]. If [such a] robot emerges and begins to do bad things, the same thing’s going to happen to [it] that happened to the real Hitler, which is the rest of society is going to rise up and quash it down.”

Maybe, or maybe not. Even with the rapid pace of transformation, most of us will have to freeze our brains, or upload them to the cloud, to find out.