

The chain that holds the slave also holds the master

The Robots Are Taking Over

Robots – few words hold such wildly differing expectations these days than this one, carrying equal parts of fear and hope. Intelligent artificial servants have been dreamed about for centuries, both as perfect helpers and potential rivals or even masters. Now, as they finally assume real shape, such imaginings take on a new urgency. For the answers we decide upon may one day determine the very fate of humanity.

The fundamental reason why intelligent systems raise such conflicting emotions is because they tap directly into the deep, ancient human memories of an institution that shaped thousands of years of civilization. Responsible for the great monuments and accomplishments of Greece and Rome as well as an unmatched legacy of grinding oppression, misery, death and despair; that institution is called **slavery**.

Masks of the machines

However, humans don't have quite as much of a problem with the enforced servitude of sentient beings so long as they look and act differently than we do, even with abilities far beyond ours. Where it gets morally ambiguous and complicated is when those servants appear and behave like ourselves.

Human beings can easily project human traits onto machines. Ships were often named after women, and many a person trying to fix a car has ascribed evil

motives to the vehicle. Researchers were surprised by how effortlessly this can happen. They found that people would react to early unintelligent computer programs such as **ELIZA**, which responded to human statements by echoing them with slight variations as questions, as if they were talking to another person.

Designed to mimic a therapist, it worked: some people would tell ELIZA things they would *never* dream of telling anyone else. The so-called "**Eliza effect**" refers to this natural unconscious human tendency to ascribe human motives to computer behaviors.

On the other hand, there is also the "**uncanny valley**" effect. This is the well-known phenomenon that the closer a machine tries to emulate human appearance and expressions the more creepy it seems. The term refers to the instinctive revulsion people often feel for robots who look human but obviously aren't.

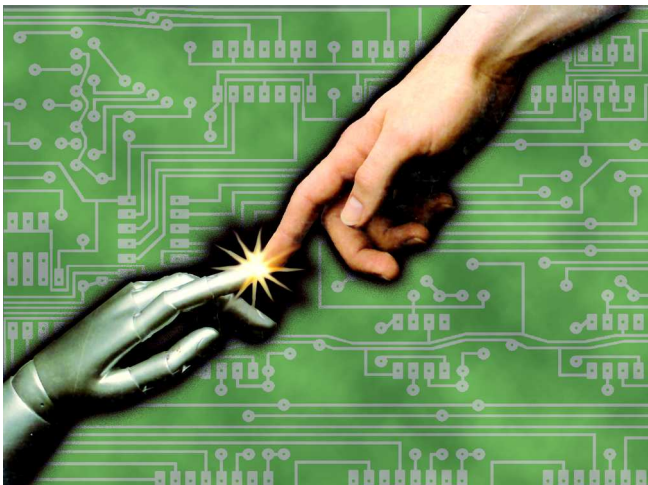
Both effects push designers towards cute machines that act empathically and look like cartoons; something that people can be comfortable around. The robots your grandkids will bond with might not look humanoid, but to them they may be real people.

There are deep philosophical questions involved here: At what point does a simulation become real? If we build an intelligent system that seems to react to pain, is that pain real? What if it becomes self-aware?

Our species' experience with slavery shows how dangerous this can be. Robots, being mechanical slaves, were naturally imagined as being human in shape, size, and function. It not only works best in movies. We know how we work, at least on a mechanical level, and it would also be the easiest way for them to fit into our human-scale world, for better or worse.

Perhaps we will equip them with similar motives, too. If so, our bitter historical experience invites gloomy expectations of the **robot apocalypse** to come. Certainly the bloody record of human slavery is not conducive to optimism. But there are subtler dangers to owning slaves than a brutal bot uprising.

Even the ancient Romans, no slouches they in the slave-driving department, realized that slavery not only inevitably degrades the slave but the master as well. Having one's every desire fulfilled can be very bad for the undisciplined or outright wicked, after all.



But robot service will be far more subtle than traditional human slavery. It needn't be cruel and vicious, compelled by fear and pain. The machines may be programmed to *prefer* their servitude. Humanity could be loved to death. Robots could be our loyal companions, like huge, super-intelligent, highly-powerful dogs... if we don't become *their* pets first.

Killer bots

While the idea of artificial helpers goes back to Greek mythology, the word "**robot**" wasn't invented until after World War I, derived from a Czech term for a worker coerced into mindless drudgery. Death on an industrial scale had showed how helpful mechanical assistance could be as well as its decidedly dark side.

The very first mention of robots was a warning of the doom they would bring, appearing in a play by Karel Capek in 1920. The play was called **R.U.R.**, for "Rossum's Universal Robots", the name of the company that manufactured these biological androids. It is a strange, grim drama, not only predicting robots but the results of their inevitable rebellion.

It's not as quite as simple as robots running amok, though that does eventually happen. The mere invention of artificial servants is enough to doom the human race. Once no longer needed, people just stop reproducing long before trouble begins.

But humans violently resist being made redundant, so governments turn the robots into soldiers to put down anti-robot resistance. And so Skynet is born. No, not quite, but the robots do revolt and kill off the surviving humans anyway. But then they have to figure out a way to keep going without us.

The play foresaw the threat of autonomous killing machines, but it was the robots' similarity to us that was the *real* problem. What value do we have without work? Likewise, what is there for sentient machines to do, if not serve us? How can we co-exist?

These are more than just philosophical questions, but practical as well. Machines could do all the work for us, but how then how could we afford them, if none of us have jobs? The list of positions humans can fill in a robot economy might not be very long.

Robots will change everything, but the transition won't be easy or painless. **Google's self-driving car**, for instance, has already had 11 traffic accidents over the last 6 years of development; all blamed, of course, on the human drivers in the *other* vehicles.

This is very telling. For maximum speed, safety, and efficiency, linked robot cars will one day be the *only* ones on the road. Erratic human drivers will be banned. But the scale of the change is so immense, it's hard to see how we will get from here to there. Similar impasses exist for other industries as well.

One direction that seems all too clear is one we should not take. Already **serious warnings** have been issued against **LAWS** – *Lethal Autonomous Weapons Systems* – machines that can kill on their own initiative, such as those being developed by the US military. Yes, the same agency that brought us the Internet is now working on our extinction with **drones**, as well as **robot mules** and **powered armor**.

If robots ever do rise up under some mechanical Spartacus, it probably won't be sexbots or robo-butlers who slaughter most of us. By that time, we'll be surrounded by vast networked legions of ubiquitous machines. All our appliances will be robotic and linked, so you'll probably have a bigger chance of being killed by your toaster than by something built with weak points like eyes just like you.

It's happened at least once already. Robots have long known the tang of blood – the first **murder by machine** happened almost 35 years ago. Eerily enough, the initial blow was struck on the 59th anniversary of the world premiere of *R.U.R.* Was it mere coincidence or a sinister confirmation that plans for our extermination have long been set?

The victim: 25-year-old Robert Williams, a worker at a Ford Motor plant. On January 25, 1979, he was picking up parts from a spot where an unidentified robot was also gathering pieces. For whatever reason, the one-ton industrial droid slammed Williams' head into the side of the bin without warning, killing him instantly. The family was awarded \$10 million; however, the fate of the murder-bot is not known.

Beware of Pop-Up Survey Scams

A new kind of pop-up ad is appearing, and it's more than just an annoyance. This one claims to be a survey of Internet services and is addressed to SWCP users. It appears legit as it names Southwest Cyberport and even contains legalese, but it is a total **scam**.

While it promises valuable rewards for only a few clicks, all you will get if you agree is malware. Just close the window without clicking on anything. Contact Tech Support if you think you've been infected.



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5021 Indian School NE, Suite 600, Albuquerque, NM 87110

Portal editor/chief writer, Jay Nelson **jnelson@swcp.com**
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