

Michael Ingold  
Artist Statement

In a world filled with digital information and technology we are moving ever closer to a time where humanity's dependence on machines may actually become a liability. The increasingly rapid advancement of science, specifically robotics, automation, and artificial intelligence, may create a situation where even those with the deepest understanding of these fields may no longer be able to individually comprehend the total nature of the objects they are creating. As our culture becomes ever more reliant upon these technologies that were initially designed to serve us, we may find ourselves in danger of actually being supplanted by machines whose directives have become their own and no longer their human creators.

**Darwinism and Technology:**

When organisms occupy specific ecological niches, that is to say, when they do not directly compete for food and resources, they may happily co-exist in a peaceful manner. However, when two organisms occupy the same niche and overlap geographically, they usually will compete until one is ousted. A classic case of Darwinism, or survival of the fittest, is that of the Neanderthal man. Neanderthals occupied much of what is now present day Europe for over 100,000 years, probably having reached an equilibrium of sorts with their food supply and other resources. Then suddenly, and without warning, 34,000 years ago a more intelligent and versatile hominid, *Homo sapiens sapiens* (modern man), who had the then advanced technology of the throwing spear, moved into Neanderthal territory from Africa, upsetting their equilibrium. Competition for the same resources eventually drove the Neanderthals into extinction (Georges 194).

Conquered people throughout history would argue that outsiders, particularly those with superior technology, are often dangerous. Conquest can mean enslavement or extinction by

means of war, and cultures that are forced to succumb to the superiority of invaders may be reduced to a subservient class. It is possible, however, for curiosity and hardship to overcome fear, and for diverse populations to learn to intermingle as they have right here in the United States. History shows how melting-pot cultures may be enriched, but at the possible cost of anxiety, stress, and loss of individual cultural traditions. Sensible questions to ask then when a culture faces the prospect of merging with, or being assimilated into another would then be, “How much will we have to give up?” and “What is there to be gained?”

In my work, the cultural face-off of interest is that of humanity and technology. The threat posed by intelligent machines in contemporary culture harkens back to C. P. Snow's warning about the isolation and diversion of science from humanity in his 1959 Rede lecture, “The Two Cultures.” Then, as now, is the concern that science and technology may be out of control, taking on a life of their own and disconnecting themselves from their role as an aid to human society. My fear is that this may actually be coming true as our machines begin to take control of both menial tasks and critical aspects of human life, therefore threatening to replace us altogether.

Humanity's dependence on technology seems to be growing at an exponential rate. If this continues we may soon be facing difficult questions about how the relationship will develop. In what sense could/should a global network of intelligent machines be regarded as a hostile force? Could humans at large become the next Neanderthals? When one culture threatens to assimilate another what is the best survival strategy for those who are at a severe technological deficit?

### **Humanity vs Technology**

New technologies have always posed a threat in that they often require people to think in new, unfamiliar, and sometimes uncomfortable ways in order to adapt to them. Add to this the fact that new technologies do often render certain occupations obsolete, and you have great

potential for technophobia. Cobblers, cotton-mill workers, blacksmiths, and more recently grocery store clerks are not nearly as common as they used to be. If you work in a profession that is about to be automated, then the threat to your livelihood is very real. The threat of job displacement by automated machines is not just limited to factory work. Some theorize that we could be eliminating all jobs, eventually even those of running the world. Hugh Loehner, the creator of the Loehner Prize for Intelligent Machines, says his interest in artificial intelligence is motivated by a lifelong desire to see all menial tasks and chores that burden humans taken over by machines. “I want to see total unemployment. That for me is the ultimate goal of A.I. and automation (Georges 184).” It is not too difficult to imagine an economy where labor is so cheap that all the necessities of life will cost practically nothing, and the accumulation of material goods would cease to be a priority. We would presumably occupy ourselves with leisure and learning. Would Loebner's vision be so bad?

The above is an admittedly optimistic way of viewing the possible outcome of the evolution of technology. I am more interested in the questions that arise when one theorizes about the potential downside of the robotics revolution. What would a robotic revolution look like?? Would humans willingly turn over their power to a seemingly more wise entity? Or would the machines seize power in some sort of coup? The more likely and perhaps more frightening answer would be a gradual, painless, and possibly pleasurable transition as we happily allow computers to do more and more of the menial work in our lives. Computers will take over simply because they do their jobs so well.

In his book *Computer Power and Human Reason*, Joseph Weizenbaum envisions a world in which humans will gradually and unwittingly allow themselves to drift into a situation where more and more dependence is given to machines. In this world people will find themselves so overwhelmed with the daily decisions of a technically complex life that they will readily hand

over much of their decision making to machines which are able to handle the situations much better and faster. Eventually humans will become incapable of understanding the details of how the programs and machines run our world. We will have forgotten the instructions we originally gave the machines, and the machines will have found new and more efficient ways to carry out the original orders. As the machines learn, they will potentially find new directives that seem objectively more suited to meeting their goals. At this point humans will have lost control (Weizenbaum 212).

The idea that machines will take over enough of the critical aspects of our lives to eventually assume power is the basis for perhaps the oldest science fiction themes. The question is, are we any closer to this now than we were in 1976 when Weizenbaum made his predictions? Back then the internet was nothing more than an idea, personal computers had not even been invented, a computer was a monolith that filled an entire room, and robots mostly lived in the pages of science fiction novels. Today it is difficult to find an aspect of our daily lives that is not at least in some way dependent on computers. We, of course, like to think that we are in control and still making all of the important decisions, but still, it is obvious that machines are doing far more thinking for us than they were thirty years ago.

Most of us conduct our affairs without ever thinking about how dependent we are on thinking machines. They have become woven into our culture, which is inevitably cluttered with more immediate crises that overshadow the details of our dependence. It is not yet obvious that living with thinking machines poses any sort of threat. In fact, the average person sees them mainly as tool, a toy, or entertainment that enriches our lives and makes the day to day a little more convenient. Operating behind the scenes, however, is a plethora of complex systems providing services we take completely for granted, and whose failure would have a devastating impact on our lives. For instance, when you get money out of an ATM, or request directions for

a navigation system, you are interacting with a complex machine using reason and logic to provide you with a service. In our oblivious state, we seem only to notice these machines when they are not functioning properly. A power surge can cause rolling black-outs as we saw in the huge north-east power outage of 2003. This, the greatest power outage in world history was caused by a “software bug” in General Electric Energy's computer system. Other scary possibilities include the idea that a small error in a line of software code could be responsible for causing an airliner to crash, or that false alarm in the U.S. government's NORAD system could start the next World War. Engineering catastrophes are not a new thing and all signs point to the fact that as we give up more and more power to complex machines, these anomalies will have more catastrophic effects (Levy 241). And, the less that actual humans understand these complex systems, the more helpless we are when they fail. Unfortunately we are already in a state where the coding that goes into operating intricate machines, such as unmanned military spy planes, is so complex that individual pieces of the code are written by completely separate programmers who have no knowledge of what the others are doing. It is this exact type of situation that will put us in a condition where no single person can comprehend the total capabilities of the technology we depend on.

With that said, is it likely that we will just continue on the path laid out before us? There is a common conception that if you set a frog on a hot plate it will immediately jump off, but if you set a frog in cool water and gradually heat it up, the frog will allow itself to be cooked. Some catastrophes occur suddenly, whereas others, like global warming, sneak up on us. No one seemed to do anything to stop major American catastrophes like the great depression, the terrorist attacks on 9/11, or more recently the lending crisis and subsequent wall-street fallout, even though it has been shown time and time again that all the signs were there. There are

always steps we can take to avoid disasters, but it seems as if it is human nature to ignore problems until they become unmanageable (Georges 199).

### **Intelligent Robots in Pop Culture:**

Throughout the last century pop culture has a fairly accurate mirror of humanity's relationship with technology. World war one was more than just a killer of Humanity. It killed “a way of looking at the world that had been Dominant since the Renaissance (Malone 56).”

Replacing a world of grand gardens, palaces, ornate public building and operas was one of technological advances. Fast cars, cross-continental trains, air travel, typewriters, phonographs, and sub-machine guns became the new symbols of humanity.

At the same time, pages of pulp magazines were filled with giant metal monsters who were ready to devour humanity. Most of the time they were able to be fended off with the cleverness and ingenuity of their human adversaries, but there was always the risk that humanity could be destroyed. These stories seemed to sum up the general public fear that new technology like the X-ray could eventually lead to something as scary as the “death-ray” (Malone 56).

If World War I had been the death of a previous way of life, then World War II symbolized the march into a technologically advanced and armed future. War had become too complicated to be fought by two opposing lines of men in a field. Guns had become powerful enough to fire from long-range, planes were landing on ships, and submarines could stay beneath the surface of the ocean for days without being seen. Many of the ideas that had been mere speculation in pulp magazines were now becoming real technology, i.e. the jet engine, long-range missiles, plastic, and of course, the atom-bomb.

After the end of the war there was no sign of a break from technology. MIT was working on the early development of cybernetics, and the first digital computer, dubbed the “electronic brain” was born. This paved the way for increasingly complex computers. And although they

were, at the time, large enough to fill whole rooms, the vision of a “brain” that could fit in your pocket, or into a robot already existed.

One of the most prolific science fiction writers of the mid-20th century (and possibly all-time) was Issac Asimov. Hailing from a background in science, Asimov wrote about what he saw as the problems of the future, and the key problem he envisioned had to do with the development of robots. He devised a code that he called “robotics” that was meant to govern the intelligent machines that he wrote about. The laws were as follows: 1) A robot may not injure a human being, or through inaction allow a human being to come to harm; 2) A robot must obey the orders given to it by human beings, except where such orders would conflict with the first law; 3) A robot must protect its own existence, as long as such protection does not conflict with the First or Second laws. These laws seemed to cover the code of robotic ethics so well that the actions of many of the robots that followed in science fiction history seemed to obey them in one way or another (Malone 60).

Asimov seemed to understand that a brain, be it organic or technologically created, lives in a delicate balance that is always subject to malfunctions and breakdowns. His novel *I Robot*, published in 1950, was a testimony to the age of Freud. It featured Susan Calvin, a robopsychologist whose specialty was the understanding of the variables in a robots “positronic” brain, and thereby governing its behavior. The novel worked through the psychological complication of human-robot relationships.

If everyone had been as enlightened as Asimov, it is possible that technology may have followed a different, more humane, course. Unfortunately in 1952 with the detonation of the first hydrogen bomb, technology seemed to be gaining a bad name for itself again, as it had done in the post-World War I era. By the time the 1950's were over, the world was teeming with new robotic technology. The Soviet Union had launched Sputnik into orbit in 1957 starting the “space

race” to see who would be the first to land on the moon. Suddenly there was a need for robots that could replace humans in conditions that were not suitable for human survival. The combination of video cameras, computers, and precision engineering enabled machines to perform extremely complicated and delicate tasks with a high level of reliability. To use them in space, on the moon, and now on Mars, was just a matter of more involved calculations.

As robots were becoming standard equipment in space, they were also becoming standard equipment in the movies and on television as well. Several new series involving space were born and each of them featured at least one robot. Some were fairly benign, like the robot baby-sitter in *Lost in Space*, while other, more menacing, robots were featured in *Star Trek*, and the British series *Avengers*.

The robot that both fascinated and horrified audiences the most was HAL, who was scheming for control of the spacecraft in *2001, A Space Odyssey*. HAL was the creation of Arthur C. Clarke, another prolific science fiction writer of the mid-20th century. HAL was the prime representation of Asimov's robotics gone completely wrong. Not only did HAL possess a robot's non-emotional psyche, but he also understood human psychology as well or better than the humans themselves. He belonged to a generation of intelligent machines that were so complex that they had been built by intelligent machines themselves. It is a prime example of the earlier presented theory on how humans stand to lose control of their creations.

By the 1970's robots in media seemed to have taken a turn for the better. Although there were still a few like the Fembots in *The Six Million Dollar Man*, who represented the machine at the command of the mad scientist, most had become fairly harmless. This may have been due to the fact that society at large had become more familiar with technology and it no longer seemed to pose the same threat it had in previous decades. We were no longer afraid of machines that spoke and seemed to understand us. Telephones and computers were now commonplace.



The robots of Hollywood and TV seemed to take on more of a personality. Many leaned towards the cool sophistication of Woody Allen's *Sleeper*. And even if they weren't able to achieve that level of charm, they were at least the loyal and courageous sidekicks in Star Wars. These creatures were entertainingly neurotic and seemed to suffer from too much specialization and not enough charisma. They are sadly aware of their own limitations. In the future envisioned by Gorge Lucas in the *Star Wars* trilogy it is almost as if the robots had their chance to take over the world in an earlier time, but obviously failed. In this imagined war, humans emerged the victor and went on to domesticate robots much in the same way we domesticated animals centuries earlier.

The more recent themes in popular science fiction seem once again to be more focused on the possible conflicts between humanity and technology. Ridley Scott's *Blade Runner*, and Stephen Spielberg's *A.I.* both foresee a future in which robots are outlaws hunted by humans and relegated to a lower societal rung. These themes speak to the greater issue of racism and classism in contemporary culture. Examples like *The Matrix* and *Terminator* series have reversed the roles and humans have become the hunted rather than the hunter. This is an interesting take on who will become the “other” in future society.

### **World War Four:**

The work for my thesis exhibition “World War Four” is meant to be a tongue-in-cheek look at a future where the divergence between humanity and the intelligent machines, or “Framlings,” we have created has escalated into a global conflict. The work is being presented to the viewer as artifacts on display as they might be in a cultural or natural history museum in an alternate future. This premise is dependent on a fictional reality that departed from our own shortly after World War Two.

In this alternate reality science was able to harness robotics and artificial intelligence at the dawn of the digital age. In the 1950's and 60's the robots that we recognize from comics and science fiction were in fact a reality, and these machines functioned as humanity's servants and workers for the remainder of the 20th century, occupying a societal rung similar to that of our animals and pets. In the beginning of the 21st century there was a third World War. Although the impetus for the war is never explicitly explained, we know the conflict ended with humanity united under one Unitarian government, the U.R.E. (United Republic of Earth). This new unified world government was in many ways forced to operate on a socialist platform due to the fact that the near total automation of both blue-collar and white-collar jobs had effectively put an end to the capitalist model. With a general population that now had an abundance of free time, there was a fair amount of civil unrest. Through the automation of labor, and our willingness to give up our daily responsibilities to the Framlings, humanity had also given up it's sense of purpose.

While humanity was struggling to cope with utopian society they had worked so hard to create, the Framlings were also struggling. They were created with directives based on models of efficiency and order, yet the humans they worked to support seemed to embody the antithesis of these virtues. They saw humanity as an illogical and inefficient model whose self-sustainability was painfully handicapped by its own stubbornness. With no logical reason for supporting humanity other than the human initiated directive to do so, the Framlings made the bold decision to effectively end relations with the humans, and consequently began the global conflict that is the backdrop for my thesis work.

In the conception of this narrative, I have been intentionally ambiguous about the nature and ethics of the U.R.E. in an effort to make the viewer question their allegiance to an autocratic authority. The symbols and imagery used in the U.R.E. propaganda posters borrow heavily from the aesthetics and symbolism of German and Japanese propaganda of the World War Two era.

This is coupled with the venerated portrayal of Gallius Orrek D'engeldt, their “honorable” leader, which is meant to mirror similar representations of Communist dictators such as Stalin, Mao and Castro. It is also no mistake that the leaders initials are G.O.D. This is a play on the idea that like the Communist and Socialists leaders of our past, he is meant to be revered as super-human among his followers. It is also a reference to the ambiguous ethics behind the creation of artificial intelligence, and more specifically alludes to the idea of humanity's attempt to “play God” in its development of A.I. The general aesthetic is an exaggerated take on the idea of global unity in the wrong hands.

In contrast, the aesthetic of the Framling figurines leans more toward the lighthearted. Their boxy design takes its visual cues from popular science fiction of the 1950's and 1960's, and contemporary Japanese anime. With their large glassy eyes and cumbersome proportions, these robots have an awkward cuteness about them that seems anything but threatening. Therein lies the irony that these friendly looking robots might pose any sort of threat to humanity. In the same way that the ominous direction of contemporary technology is often overlooked, the Framlings benign appearance belies their dangerous nature.

The name “Framling” was chosen for two reasons. The first is a reference to computer networking. In a network many computers can access the same information simultaneously. I'd like to think that the robot's intelligence and communication would function in a similar manner. Central to the functionality of a network is some sort of server system, or main-frame computer that stores all the information and directs the traffic that is accessing the data. In the case of the Framlings, this would be their leader, “Framus,” whose character functions as the main frame computer and “soul” of the Framling race.

Second, the word “Framling” is borrowed directly from Orson Scott Card's Hierarchy of Alienness from the *Enders Game* series of novels. In the novels, Card lays out a system for

defining the differences between any two races. “Framling” is the term he uses to describe members of one's own species who are from another world or civilization; people who are biologically the same, but culturally different. In the example of my work, the robots would not objectively appear to be of the same species as humans (or any species for that matter), however they were created by the humans and metaphorically we can be seen as the parents of this new type of intelligence. The robots were born of our hands, but their aloof demeanor and logic-based thought stand in stark contrast to humanity's emotional and somewhat illogical nature, making them unfamiliar to us, and making it impossible for our cultures to ever really integrate.

To this end, the sentiment conveyed by the Framlings light-box posters are similar to those used in the U.R.E. posters, echoing themes of unity among ones kind and ill-will towards the *other*. The aesthetics are, however, decidedly different. Rather than using war-time propaganda as the visual source material, I instead looked at contemporary design and advertising. Because in the alternate reality of my show the Framlings were “born” in the post World War Two era, their reference to wartime propaganda is more historical than visual. Instead they look to the visual language that best represents competition to them, and that's advertising, product, and package design. Their propaganda posters are presented as light boxes to emulate the idea of technology and mimic presentations of advertising we see everyday in store signage, marquees, bus stop advertisements, etc.

The theme of unity in the Framlings posters is important to the narrative. In the years after World War Three the Framlings were divided into five separate factions, represented by the five groups of figurines, that although at first glance seem arbitrary, are in fact representative of five important groups in contemporary western culture. The “S-1” model was the first widely distributed robot and consequently spent most of it's time essentially functioning as a personal servant. It is the quintessential blue-collar worker who is relatively complacent considering the

amount of abuse it gets. The “S-2” is a more advance version of the “S-1.” It has the capacity for more intelligent thought, and like the white-collar worker, or “suit,” has more responsibility, and inversely, feels more disenfranchised with human society and culture. The “C-2” model is the inner- city dweller, and although it has the same capacity as the “S-2” model, but it lacks the resources, training, and motivation to capitalize on its intelligence. This has however not subdued it's sense of entitlement, and the “C-2” thrives on material possessions and wealth. The “N-2” model is the prototypical nationalist, and the military type through and through. After World War Three the Japanese again withdrew from society as they had in the 17th century. In it's isolation the N-2 was instilled with a sense of honor and commitment to it's superiors. Although this commitment was initially to it's creator, humans, the allegiance later shifted to it's own kind, the Framlings. Lastly, the “B-1” model was initially created as an environmental monitoring tool. Their appearance mimics that of various animals so they are able to integrate into the wild and observe without interfering with nature. Unfortunately at the beginning of World War Four their directive was changed to eliminate wild animals rather than preserve them. Although these five factions by no means represent the totality of an out culture, my hope is that the stereotypes they embody correspond to a diverse cross-section of the societies in which they were reared.

Using Darwinism as the basis for my belief that humanity and technology are on a collision course, my work looks at a possible future where intelligent machines and mankind will find themselves in a global conflict vying for the dominance of their respective races. The objects in this show use visual and conceptual resources as diverse as World War Two propaganda posters, mid-20th century science fiction and comics, anime, and contemporary advertising to create a body of artifacts from a fictitious fourth World War. My hope is that this narrative may serve as an allegory for humanity's dependence on technology and the

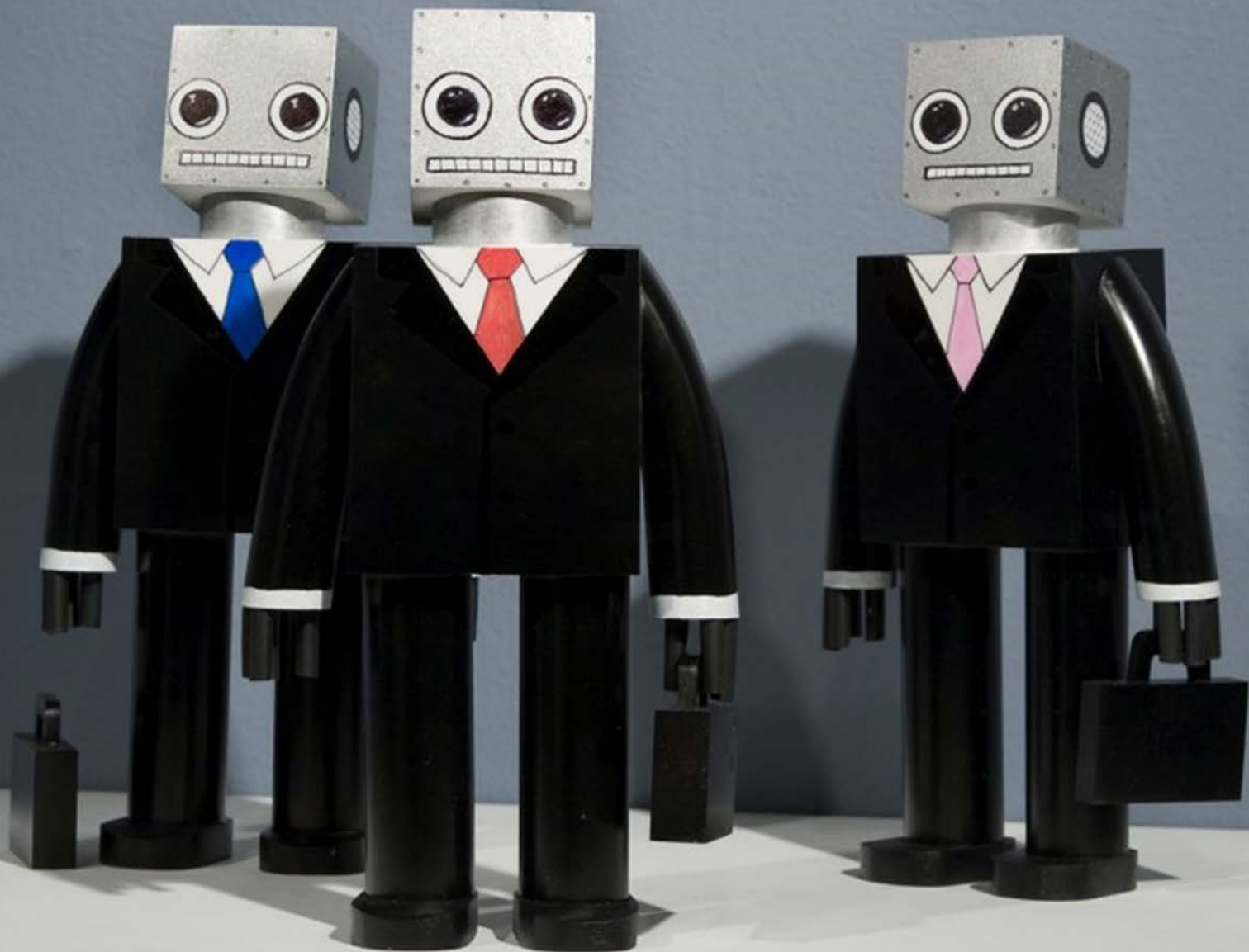
consequences that may ensue if we are not cautious of the somewhat ominous direction in which we are headed.

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FORTO HODIAŮ  
PZCO MORGAŮ.

★ U.P.E. ★









# GET IT FIND ROBOT.





LA UNUIS RESPUBLICAŢII DE SORŢĂ



POR PLI SEKURIZAREA MAREZUŢII.



**U.R.E.**

A man in a dark and light brown horizontally striped shirt stands with his back to the camera. He is holding a red handgun in his right hand. Behind him is a large target with concentric red and white circles. At the bottom of the image is a black silhouette of a city skyline, including a prominent skyscraper. The text 'GALLIUS', 'ORREK', and 'D'ENGELDT' is overlaid on the man's back. In the bottom right corner, the number '1800' is repeated three times in a grid. In the bottom left corner, there is a circular icon containing a stylized phone handset.

GALLIUS  
ORREK  
D'ENGELDT

1800  
1800  
1800