

# Human tools and technologies essay



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## **Introduction**

Technology, whether as a process or object, has always been the fundamental goal for advancement since the existence of human society. Technology has always been the catalyst in the different eras of human history. It is natural for us to clump our existence into groups of major technological achievements (i. e. Bronze Age, Iron Age, Nuclear Era etc.). The coming of greater advancement in technology throughout the epochs heralded humanity's fervor to find prosperous means of living, as well as unprecedented means of destruction. Whether or not technology is used for constructive or destructive purposes depends solely upon the question of control.

The elemental paradox of society is the power that technological progress brings to society, but the lack of control held by the individuals of the society. Who has control? To what degree is there control? And what are the intentions of those in control? These questions of control will be explored, supported by articles written by Postman (1992), Wajcman (1991), Resnik, Andrews, and Nelkin (2002), McLuhan (1969), and Joy (2000). I will also incorporate the movies Jurassic Park (1993), and I, Robot (2004), and a news article The Stage Is Set: Who Will Control the Internet? (2005) written by Mark Long to further illustrate the questions.

McLuhan

All human tools and technologies, whether house or wrench, or clothing, alphabet, or wheel, are direct extensions, either of the human body or of our

senses...as extensions of our bodies, tools and technologies give us new leverage and new intensity of perception and action.

- McLuhan, *Counterblast and the Medium is the Message*, (2)

This statement given by Marshall McLuhan embodies our relationship with our technologies in the most basic, raw, and unprocessed form. All technology, whether it is something as basic as a chair, or as sophisticated as a jet plane, have direct correlation with the human body making actions easier to accomplish. Therefore, technology changes our physical and social behaviors. If our function patterns are changed by the introduction of new technology into our society, then it can be viewed that technology is in control of the individual human. Even though the human may have created the technology for their convenience in the first place, creation doesn't necessarily mean control.

Neil Postman

In "Invisible Technologies" (1992), Postman describes how invisible technologies or techniques can be similar and familiar to tangible technologies (i. e. machines). Postman compares the technique of language to the technology of machinery by saying, "In respects, a sentence functions very much like a machine, and this is nowhere more obvious than in the sentences we call questions" (Postman 84). In other words, our ability to control technology will be comparative to our ability to control techniques. Unfortunately, Postman also argues that control of techniques:

Like any other technology, tends to function independently of the system it serves. It becomes autonomous, in the manner of a robot that no longer obeys its master. (92)

Language is a good example of an invisible technology that is constantly evolving independently. Within the same language, use of diction, slang, and phrases changes every generation. If techniques are autonomous, and the capacity to control technology mirrors our ability to control invisible technology, then it can be assumed that our relationship between the machines will also become autonomous. The autonomous nature of technology is further explained by Marshall McLuhan where he writes:

The Roman road which represented a great improvement in the means of communication knocked down the physical and cultural walls of ancient cities. But the road was made feasible by writing, papyrus and the wheel.

- McLuhan, Counterblast and the Medium is the Message, (4)

McLuhan describes in that passage that technology created (the wheel), will bring about the need for the creation of supplementary technology (the road), which will bring about development of more efficient materials, highways and so forth. This is the principal example of technological autonomy.

The technique of management, which we presently consider to be a standard method in various sorts of industries, was actually “ created in the United States ‘ out of the blue’... it was not a creation of any obvious needs of American industry” (91). The idea of objectifying work done in industry

greatly increased productivity in the factories. Hence, the management class was autonomously created, developed, and spread like wild-fire throughout the Western world. Postman also writes:

Management is an important example of how and “invisible technology” works subversively but powerfully to create a new way of doing things, a classic instance of the tail wagging the dog. (92)

Industries have become so dependant on management, that “we are near to believing management is an aspect of the natural order of things” (92). This means that society has become blind to any other viable option except for the technocratic one. The “tail wagging the dog” (92) as described by Postman is a representation of how the method of management essentially dictates businesses, instead of the businesses being in control of the management. Postman views technological advancement as being autonomous in nature, and problematic to control. However, it is still possible for society to selectively mandate the direction of technological progress depending upon the intentions of society.

Wajcman

Technological advancement throughout human existence has been mostly dominated and dictated by male-oriented values. Technological development in hunting, warfare, and science has been mostly guided by male figures in society. These activities are attributed to male characteristics such as rationality, violence, and supremacy.

The feminine perspective, which is “ subjective, intuitive, and irrational” (Wajcman 139) has had very little to say throughout the development of science and technology, and therefore has had minimal influence on modern technology. “ Technological change has “ male values” built into it... technological change is starved of the so-called female values, such as intuition, subjectivity, tenacity, and compassion” (140). If feminine thoughts were rarely attributed into the development of science and technology, then it can be concluded that control of the direction of modern technological development is mostly held by male figures. Thus, male characteristics continue to dictate the course of technology.

Resnik, Andrews, Nelkin

Researchers have found a great many ways to use human genes, organs, and cells, and the substances they produce, to save lives. They have obtained patents on their discoveries and have founded businesses to meet health care needs. And- not at all coincidentally- they have made money.

-Resnik, Andrews, and Nelkin, *Is it Ethical to Sell Human Tissue?*, (312)

The curiosity of our own human biology has naturally been the first order of science to be explored by civilizations: from Egyptian mummification methods, to Chinese acupuncture techniques. Mastery one’s own body was in essence, a step towards mastery of the things around us (mastery being a strong male characteristic). Biological technology however, is a relatively new field in applied biology where the manipulation of human genetics and cells has become commercially lucrative for businesses in medicine. The idea

of corporations treating human cells and gene strands as economic commodities is one that is unpredictable, and especially uncontrollable.

Body parts are extracted like a mineral, harvested like a crop, or mined like a resource. Tissue is procured- a term more commonly used for land, goods and prostitutes. (325)

If the corporation sector is performing genetic research independent from government organizations, then the only item of interest is profit, instead of the wellbeing of the individuals being harvested. The public has become an object of making money. Additionally, the degree of control on behalf of the individual being exploited is non-existent. The point of control of this scenario belong to the economic elites; the corporate elites of the capitalist world.

Bill Joy

The twenty-first century GNR technologies have clear commercial uses and are being developed almost exclusively by corporate enterprises... We are aggressively pursuing the promises of these new technologies within the now un- challenged system of global capitalism and its manifold financial incentives and competitive pressures.

-Joy, *Why the Future Doesn't Need Us*, (Joy 306)

The ability to control technology over the recent years has become an issue of importance just as much so as developing them. This is especially critical when advances in genetics, nano-technology, and robotics (GNR) are made. If the GNR technologies are being developed unchecked solely by

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corporations, then the moral and environmental repercussions of employing the GNR product can be easily overlooked in favor of profit maximization.

The danger can be severe if the GNR technology used has the capability to self-duplicate itself at exponential rates. Joy refers to the immense damage GNR replication can accomplish as “gray goo” (306). “Gray goo would surely be a depressing ending... and one that could stem from a simple laboratory accident. Oops” (306). The perils of self-duplicating, genetically modified organisms are very clear and simple to comprehend. This can be done by taking a historical example of the introduction of foreign animals of the West into a domestic ecosystem of Australia. When Australia was colonized by the British, the first settlers brought along with them pets and pests, which thrived because of their efficiency over the native wildlife to hunt and populate. To contain the numbers these animals is proving to be an impossible task, and attempting to control any GNR outbreak may prove to be futile.

### Jurassic Park

On an isolated island, off the coast of Costa Rica in the North Pacific, there exists a futuristic theme park embedded deep within the deep jungle. The theme park boasts souvenirs, rides, and through advanced cloning techniques brought back to existence a species of creatures that have been extinct for 65 million years: dinosaurs. The man who funds the expenses and created the vision of Jurassic Park is John Hammond. The character is a billionaire owner of InGen Corporation, whose grand dream is to share his dinosaur creations with the rest of the world. In order to contain his dinosaur



creations, Hammond has state-of-the-art containment technology, with 10,000 volt electrified fences running along the perimeter of the island. Like most technologists, Hammond thought he has absolute control.

That was, until his technology failed, his electric fences left inoperative and the control that he boasted over the island was lost. In a scene where Hammond and Ellie Sattler are eating what's left of the food before it spoils, they have a discussion over the loss of control on Jurassic Park. Hammond, being a technocrat, proclaimed the reason that he lost control was because he was "over dependant on automation." He continues by saying, "When we have the control..." Ellie then asserts, "We never had the control! That's the illusion!" Ellie's assertion shows how control over technology, no matter how much precaution is taken can never truly be obtained.

Unknowing to John Hammond, another technology had gone out of control. The character Malcolm, who was a "chaotician," told Hammond that he does not wield control over the activities of the dinosaurs, and that simply "life will find a way." True to his word, the genetically engineered female dinosaurs on the island were miraculously reproducing in large numbers. This event in the story is similar to the "gray goo" thought in the article, "Why the Future Doesn't Need Us," where genetically modified creatures would become ecologically superior, and multiply beyond containment (Joy 306).

I, Robot

Dated in the year 2035, Del Spooner is a detective that is wary of the rapid growth in robotic technology. As he investigates the murder of an

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established robot scientist who created the first intelligent robots, Spooner unwinds the mystery of the murder and the mystery of the robots. The robots in the film are programmed to function under three basic laws. The laws are a measure on humanity's part to keep control of the robotic population. The very first robot to be designed with the three laws called "VIKI."

This robot had evolved its own understanding of the three laws without any human interference and principally altered the original three laws to tailor a new meaning. With this altered understanding of human nature, VIKI proceeded to manufacture a new series of robots called the NS-5, without any significant human aid. Del Spooner investigates one of the manufacturing plants run completely by robots and in disbelief says, "Robots building robots... now that's just stupid." Joy predicts intelligent robots will exist in the short future, and he proclaims that "once and intelligent robot exists, it is only a small step to a robot species-to an intelligent robot that can make evolved copies of itself" (Joy 303).

A long period of human dependence on the robots has made control over the rebelling robots difficult to regain. This event in the story can be best exemplified in Bill Joy's article where he states, "... the human race might easily permit itself to drift into a position of such dependence on the machines that it would have no practical choice but to accept all of the machines' decisions" (Joy 296).

The Stage Is Set: Who Will Control the Internet?

Control of technology is often intricate, difficult, and is held by ruling elite. Information is one of the more complicated, and obscured technologies. The Internet is by far, the largest collector, and transporter of information available in the world. Therefore, it is safe to conclude that controlling the Internet is definitely a monumental task that is most likely impossible to achieve. That is exactly why the UN sponsored world summit in Tunisia is taking place; to determine what body of government should have control of the internet, and the method of doing so.

“ When we talk about who controls the Internet, to me the issue is very much like who controls the ocean” (Long, sec. 5, par. 1). The ocean is a large expanse of area where massive volumes of trade crisscross the oceans every day. In similar respects, the Internet is a vast expanse of space, where information is sent to and from different computers. It is much like how ships travel from port to port. Since the ocean is so large in area, it is almost impossible for governments and organizations to completely control all piracy, drug trafficking, and illegal shipping. The Internet is also so immense, that no matter how much a government may try to control internet content, or the data being sent through it, absolute control is ultimately an impossible task.

The Internet currently is in control by the Internet Corporation for Assigned Names and Numbers (ICANN). However, it is managed somewhat loosely so the Internet is more or less run by an open style of governance. “ Controlling something doesn’t make it any more secure” (Long, sec. 4, par. 2). The individual using the Internet however, will not have much of a say in how the Internet should be over-lorded. It may be critical on the other hand, that the <https://assignbuster.com/human-tools-and-technologies-essay/>

basic and fundamental rights of the Internet remain unchanged if control of power is passed from the ICANN. This is especially important in nations, such as China, Cuba, and North Korea, where civilian and political rights are being oppressed by the government in power, since it is possible for the oppressing government to utilize the internet as a weapon to further subjugate their population.

### Personal Experience

My father was born during the baby boom generation of post-war Korea. During his lifetime he has witnessed great change around him. South Korea during the early 1960's was marked by great poverty, civil unrest, and the military uprising led by President Park Jung Hee. My father always used to tell me about the scarcity of electronic technology during his youth. It was quite normal for an entire neighborhood to share the use of one television set, telephones, and refrigerators, which was considered a luxury. That all changed after South Korea became an economic success, a nation going from being a third world nation, to a developed nation by developing heavy industry and electronic technology. The speed of technological transition has drastically changed the Korean society into a technocratic one.

Conversely, most Koreans in my father's generation are completely computer illiterate. My father still occasionally pounds the keyboard time to time when the computer is slow to respond, as well as shouting at the monitor, commanding it to work. He has a very difficult time in being able to control the computer to do what he wants to do. Those unfamiliar with a new piece of technology often find themselves without control. The most

astonishing technological advancement brought to the attention of my father is how the Internet and e-mail makes communication between relatives in Korea, who live half way around the world, instant. I'm sure in my father's point of view his concept of the entire planet just got a whole lot smaller.

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