



ETHICS GUIDE FOR PROGRAMMERS

Technological Philanthropy

ABSTRACT

Why Technological Philanthropy is so important and Programmers should become moral leaders in this historic age of technological expansion

Kris Tyte

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Quotes

If we continue to develop our technology without wisdom or prudence, our servant may prove to be our executioner.

Omar N. Bradley

Technological progress is like an axe in the hands of a pathological criminal.

Albert Einstein

I know not with what weapons World War III will be fought, but World War IV will be fought with sticks and stones.

Albert Einstein

The means by which we live have outdistanced the ends for which we live. Our scientific power has outrun our spiritual power. We have guided missiles and misguided men.

Martin Luther King, Jr

There is a serious possibility that when technology extends our capabilities, we will no longer regard biological beings as having meaningful utility. This includes human beings of course.

Kris Tyte

Chapter 1 - Premises – Transformation or Extermination

Technology will lead to the inevitable extinction of humanity as we know it. However, as this extinction progresses it can be guided by ethical principles, so at the very least there is a continuity of life, just in a technologically evolved form. Neanderthals no longer exist, they were forced out by the evolution of modern man. Technology, as the next mechanism of evolution, will inevitably force out modern man, either gracefully or brutally, this is where we determine our own fate.

Technology is defined by Merriam-Webster as “a capability given by the practical application of knowledge.” (Merriam-Webster, Inc.). The ambiguity of this definition, especially in the phrase “practical application” is consistent with the context to which I write this guide. In my lifetime (born 1973), I’ve witnessed first-hand an astonishing technological transformation of my social landscape. The top technologies of my youth were the UHF enabled maybe six channel television and a rotary dialed telephone. Today, I live in a highly computerized world where my access and exposure to cognitively limitless information is a reality. I’ve lived through the technology transformation of an analog world to a digital one, and I am witnessing the technological emergence of a virtual reality clearly poised to transform and possibly displace actual reality.

There are numerous factors beyond obvious commercial enterprise and natural human curiosity driving the rapid growth of technology, but my focus of this guide is the direction technology is inevitably taking us, and the desperate need for moral leaders to shape this future. My position is technology converging with our species is inevitable going to lead to an extinction of our species as we know it. This will take one of two possible forms: Weaponization of future technology will lead to weapons so incredibly destructive their use leads to our extinction. Convergence of biology and technology resulting in first a hybrid biological / mechanical phase yielding over time to a full mechanical form, thereby displacing / replacing our current biological species.

So is the extinction of mankind via technological advancement moral? The unleashing of incredibly destructive technology clearly is not by any standard. The historic use of nuclear technology in WWII was clearly immoral by any standard and no sound utilitarian argument can be made to the contrary, including the assertion that there was no alternative. In fact, none of the scientist working on the program agreed the using the bomb on a civilian target was reasonable and offered numerous alternatives, one being a demonstration of power on a deserted island before the eyes of the United Nations.

There have been several essays suggesting that from a Utilitarian perspective, the bombing of Hiroshima and Nagasaki were justified because less lives were lost than would have had a ground invasion become necessary. This falsely assumes a binary choice, which of course is not the case. The bombing was absolutely immoral based on any rational standard because there was such a massive loss of life and other alternatives were not first exhausted, such as the option previously mentioned. However, this isn’t a guide on the debate over the Japanese bombing, the point here is to demonstrate an example of technology used as a lethal weapon, and substantiate the claim that mankind has historically used technology as weaponry and as a means to dominate others.

There is no evidence to suggest that future technologies will not be weaponized, therefore from both a logical and historic perspective, this guide proceeds with the conclusion that future technologies can and will be weaponized, and future technologies can and will be used as a method of human control and dominance.

There is also inconclusive evidence that suggests as technology increases, the magnitude at which human beings can alter the world also increases. For example, mankind collectively now alters the surface of the earth each year more than nature herself. All the natural erosion, chemical and physical weathering of the earth is less than the collective transformative effect of mankind due to technological advancements. As technology advances, an unlimited range of possibilities of environmental control are imaginable, and as previously asserted, these technologies may also become weaponized. A world can easily be imagined where the global climate is capable of being manipulated, where regional droughts, floods, or other natural disasters could be used as a form of sanctions against a non-compliant nation or organization. With this type of power, or other power currently not imaginable, could the entire atmosphere be destroyed inadvertently? This type of disaster would only need to occur once to exterminate humanity.

The second proposition of this guide is mankind will converge with technology and evolve through technology to a new bio-mechanical, and then fully mechanical form. There is no evidence to suggest that biological function, including neurological function could not be replicated or replaced by a mechanical / computerized process. Although it is comforting to believe that there is a Platonic ghost in the machine, it turns out, even with much scientific inquiry there simply is zero evidence to support such a thing. We already are observing computerized mechanical implants used frequently to overcome biological deficiencies, such as pace makers and cochlear implants. There is even a man in Michigan with a bionic eye which does indeed provide him with some visual capabilities. Also, there exists a completely synthetic engineered cell which is capable of self-replication. These examples demonstrate the claim that mechanical and biological functions are not incompatible, and they are already on a pathway to convergence.

The other component to this realization is the therapeutic application for technological convergence with human biology. There is already therapeutic augmentation of biologic process through the use of surgery and pharmacology, for example performance enhancing drugs, plastic surgery, and enhancement surgery undergone by some professional athletes for competitive advantage. Yet there still remains sparse examples of therapeutic implantation or replacement of biologic components with mechanical replacements, I suspect due to cultural norms and that the current technology available is not sufficiently superior to the natural biological components. For example, no one is currently having their eyes surgically removed so they can be fitted with bionic eyes, or their arms removed to attach super strong robotic arms. Implanted technology will likely be supplemental and start with small enhancing augmentations and then inevitably evolve into imbedded interfacing devices, and then finally full mechanical replacements.

The utility of technological advance is clear. Technology has undoubtedly brought a much higher standard of living to human existence over time. Enormous populations, higher life expectancy, lower infant mortality, disease reduction, large scale access to information, etc. all result from

technological advancements. So it would seem moral on the grounds of utility to continue to foster environments which encourage technological advancement, and even accelerate advancement. However, even at our current level of technological advancement, we are entering into a level of advancement where the potential scale of effect is unprecedented. A simple example is the first Chinese scientist that invented gunpowder had the potential to blow up his laboratory perhaps, but what is the potential impact of a more modern invention, such as Antimatter induced fusion and thermonuclear explosions? Discoveries in advanced physics and unprecedented megalithic structure to house particle accelerators and fusion reactors investigate advancements in energy production future beyond normal comprehension.

The last moral premise of future technology is the actual limitations of the human mind and imagination. No matter how intelligent a human being is, the ability to imagine and consider all variables to extremely large systems is limited, not only by experience, but by physical mental capacity. Is anyone actually capable of imagining infinity, or perhaps imagining a color they have never seen? These simple examples demonstrate human cognitive limitations. Apply this same inherit limitation to emergent technologies built upon incredibly large technological systems, such as an artificial intelligence software. Some software and engineered technology is so sophisticated, none of the engineers on the build team fully understand the entire system. So as the complexity of technological systems expand beyond human capacity for comprehension, there is a natural void where moral judgment is suspended because of the inability to truly understand the system.

Modern man as we currently recognize will become extinct by advances in technology. This extinction can be catastrophic, or a natural progression where mankind converges with a mechanical computerized future. With enormous technological power and capabilities comes responsibilities to proceed cautiously and purposefully, but this task will be difficult given the intellectual limitation of comprehension. However difficult, mankind must cautiously progress into the future ensuring the most utilitarian application of technologies possible to safeguard the next evolutionary era. Albeit a seemingly insurmountable challenge, the continuation of our legacy may depend on it.

This is the magnitude of the reality placed in the hands of the creators and editors of technology, and the purpose of this guide.

Chapter 2 – A Call to Action - Technology Philanthropy

A Technology Philanthropist is someone who believes technology should be implemented and advanced for the betterment of *all* of humanity.

On average, technology has delivered us from the dark ages. The modern exponential growth of technology has clearly, on average, reduced human suffering, increased positive human metrics (life expectancy, mortality rates etc.). There is currently no sound reason why we all should not celebrate the clear overall positive effects technology has had on our species. We are experiencing geometric / exponential growth in the sheer quantity of collective human knowledge.

The growing dilemma we all are facing is our finite biological capabilities in contrast with those inherent in emerging technology which is theoretically nearly limitless. As strong, intuitive, creative, emotional, imaginative, moral, intelligent etc. as any one person may be, every human being has finite capabilities on all measures. These limitations are systematically being overcome by machines with greater faculties and we are yielding choices and decision making authority to these machines more and more every day. So inevitably, machines will be invisibly making most of our decisions for us by proxy. The result of this understanding is the largest transference of authoritative power in human history. The US Government knows it, Google, Apple, Microsoft, Amazon, Facebook, and similar corporations also know it, and that is why they are all fully vested in the unprecedented accumulation of human sociological data – their stated purpose... to capitalize on it!

The technology to analyze “big data” and find new ways to leverage new correlations and find hidden understandings within the data is one of the hottest topics in tech today and it is well known that this is also where the big money is going to be (and big power).

There is currently no large political lobbying organization advocating for laws protecting human beings from oppressive or exploitative applications of technologies and emerging technologies. Technology is simply outpacing the capability of mankind to create a sufficient moral framework to govern it.

There is a new form of advocacy missing from the current technological landscape – one with a stated purpose beyond profiteering and capitalizing – that stated purpose is for the betterment of all of humanity. – Technological Philanthropy

Technology should be employed for the liberty, and the health and welfare of human beings, not for any purpose contrary to these goals.

Chapter 3 – Computers – The Canvas of Future's Creation

First books, then radio, then television has captivated the imagination of modern man. There have been some range in estimates, but conservative estimates suggest that the average American will spend 7 or more years of their lives sitting in front of a television. Today, screen media of all sorts; handheld devices, computers, television, game consoles, smart phones, etc. are now estimated to consume an even greater portion of the average human lifetime. With each advance in medium, more human senses were engaged in the consumption of media.

It stands to reason, following the logic path of technological advancement, the emergence of virtual reality will become the next major medium engaging even more sensory stimulation. With deeper submersion of the senses comes more intense emotion response and greater manipulation of brain activity. The access to more areas of the brain raises the stakes on the moral implications and furthers the need for moral governance.

The most remarkable aspect of computers is they are modular, flexible, and with the capability of adding or removing peripheral devices, they collectively create a canvas where far more is possible than a purposeful appliance such as a TV or radio. This flexibility is historically unprecedented due to the extended control of the programming and functionality of the device, and the potential becomes nearly limitless, including its potential for abuse.

Chapter 4 - Moral Premises - DO's and DON'Ts

DO

Imagine the possible moral implications of your efforts.
Imagine how your efforts may be weaponized or used negatively against others.
Always assume and expect the best of people.
Don't waste time analyzing motives & intentions, instead consider outcomes.
You likely don't know all the variables, be open minded to alternatives.
Reserve judgment, approach potential immoral situations rationally.
When facing an ethical dilemma, try to act logically rather than emotionally.
Default choices should always be logically in the best interest of the user.
Give credit to others for their intellectual property, even if they don't require it.

DON'T

Negatively affect health or welfare of a human being.
Violate any laws, rules, or regulations which have jurisdiction over your efforts.
Unlawfully seize or transfer wealth or property.
Discriminate against others on any measure.
Restrict or diminish the rights or liberties currently held by another human being without their informed consent, including but not limited to:
 Property Rights,
 Copy Rights,
 Patent Rights,
 Intellectual Property Rights,
 Privacy Rights,
 and Confidentiality Rights.
Engage in "black hat" hacking, it is morally wrong and is almost never justifiable.
Cause unnecessary collateral harm to the environment.

Chapter 5 - Ethics Guide for Programmers – Decision Tree

