

TECHNICAL DIFFICULTIES

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The Undersigned Faculty Committee Approves the

Thesis of Dustin Gray:

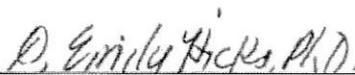
Technical Difficulties



Steve Barbone, Chair
Department of Philosophy



Robert Francescotti
Department of Philosophy



Emily Hicks
Department of Chicana and Chicano Studies

6-23-2020

Approval Date

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DEDICATION

For Rusty

The real problem is not whether machines think but whether men do.

– *B.F. Skinner*

ABSTRACT OF THE THESIS

Technical Difficulties
by
Dustin M. Gray
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The advent and widespread adoption of modern technology has impacted our society in a significant and ubiquitous manner. I argue that our dependence on modern technology, specifically, has prompted a loss of human autonomy that corresponds directly to its advancement. I argue that this anti-reciprocal phenomenon is *self-instituted*. In this sense, autonomy is not lost like ones wallet or car keys, but rather handed over to modern technology in exchange for the streamlined processes and conveniences it promises.

I arrive at this conclusion through exploring the research and findings of other thinkers situated in the field of philosophy of technology and the analyses made by other contemporary authors. I also provide my own analysis incorporating relevant phenomena that serve to validate and solidify my arguments.

For as much talk of technology that comes part and parcel with a work of this nature, I suggest something quite divergent from its leading critics. It is true that modern technology impacts nearly every aspect of our lives today, and in many ways, its *influence* defines the very way we have evolved as a society. In its use, there can be seen a wide spectrum of advocacy from *philia* to *phobia* and everything between. Yet, I recognize that the one common factor in the invention, adoption, advancement, and widespread utilization of modern technology is a human inventor, adopter, advancer, and end user. It is my contention that the blame can rest not in a *thing* for the phenomenon of *human* dependence and loss of autonomy. To truly understand the way modern technology affects us, we must look upon ourselves.

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CHAPTER 1

INTRODUCTION

In a fit of enthusiastic madness I created a rational creature, and was bound towards him, to assure, as far as was in my power, his happiness and well-being.

-Mary Wollstonecraft Shelley
Frankenstein, or, The Modern Prometheus

Within the confines of advanced technological society, we are constrained to a life of dependence and obsession. The autonomy thought to be granted by the adoption and uninterrupted use of modern technology is an illusion.¹ The world we have created for ourselves does not allow for the ability to *self-govern*, to live by the rules one makes for one's self. In this modern age, we instead live by the rules established and enforced by a system of technological advancement that is vastly far reaching and fully integrated. The sway of modern technology's influence, though, is incredibly subtle and elusive—especially to its most loyal advocates and practitioners, for these individuals shout acclaim from the rooftops for the supposed benefits granted by modern technological stratagems. They tell us that not only does continued technological advancement and integration allot us more choices but as well a greater diversity thereof. They cannot see past the veil that modern technology places between it and us and therefore fail to recognize that any choices we make are fundamentally influenced by technological ideology. From womb to grave, our thought processes and patterns of behavior are governed and regulated by technological influence. The autonomy we mistakenly accredit to our own self-governance actually manifests in the

¹ My use of the term, “modern technology,” should be taken at this point only to distinguish it from antiquated forms, for example, the distinction between a calculator and an abacus. Further analysis of what it means for a given form of technology to be modern versus antiquated will come further on in the present chapter.

form of permission granted. Our adoption of and dependence upon that which modern technology provides, in turn, grants power and control to the very mechanisms we establish to optimize our own processes. In this sense, autonomy is not taken, it is relinquished. This forfeiture becomes the loss of control, but it is not lost in the same way one loses one's keys. Nor is it the case that we are somehow robbed of control. It is handed over willingly. Through this transference of autonomy, the ability to self-govern becomes the possession of modern technology and we thus fall under *its* control. We become controlled by forces that most of us fail to recognize yet could not be more obvious, and the ultimate consequence comes to be what I call *technological oppression*. In a very specific way, technology becomes the maker of decisions and enforcer of rules; it the lord, and we the bondsmen. The very structure of advanced technological society makes for a degree of oppression that is unavoidable by any means.² Ironically, those who are believed to experience the highest levels of freedom are the most regulated, and those who lack engagement with these supposed forms of freedom tend to experience the highest degree of autonomy. Most startling is the fact that within advanced technological society, persons of nearly every socioeconomic class happily subscribe to their own bondage. On many levels, our oppression is undeniably *self-imposed*.

To illustrate my point, allow me to provide an example of how one might become subject to this particular form of oppression. Consider Jack. He has a home, a career, a wife, and two children. He is the epitome of the "American Dream." With the assistance of his alarm clock, Jack wakes up on a Monday morning, prepares a light breakfast, and brews coffee. While doing so, he flips on the television to catch up with the local news. After eating, Jack showers and dresses for work. He kisses his wife and children goodbye, enters his vehicle and casually backs out of the driveway thus initiating his regular commute to work. Upon merging onto the highway, he encounters excessive traffic. This is not unusual, though, as Jack lives in the suburbs of a large city and his place of employment is downtown. For him, this is just a typical Monday morning. As he applies the brakes in unison with other commuters, he decides to consult his smartphone's GPS function in order to find an alternate

² This will be explained at length in Chapter 3.

route. However, upon reaching into his pocket, he finds it is empty. Jack has left his smartphone at home.

An ever so subtle panic comes over Jack as he realizes that he is unable to navigate to work effectively and, therefore, might arrive late. He considers turning around to get his phone, though doing so would surely make him late. For an *instinctual* moment, he considers texting his wife to see if the phone is on the nightstand but quickly realizes that such a thing would be impossible. Seemingly, Jack *can't do anything*. He starts to wonder how he will access his email, his stock portfolio, and his bank account. How will he engage with his home security system or change the temperature on his thermostat? What is Jack to do?

Let's imagine he decides to find an alternate route *on his own*. In doing so, Jack becomes hopelessly lost and encounters still more traffic on the surface streets since many other commuters have taken similar paths upon the advice of *their* GPS apps. Tensions rise amongst the commuters as no one can seem to get anywhere. The congestion increases further as there is a utility crew blocking lanes on 5th Street as they work to repair a downed power line, something that none of them could have foreseen. Horns engage, brakes are slammed on, and Jack finds himself in utter chaos on this ever so typical Monday morning.

Though this illustration surely be hypothetical, I argue it is telling of the self-imposed oppression that advanced technological society necessarily involves. Think of vast array of technological interactions had by Jack before he even left his home. His decisions and their resulting actions were all determined by technological means and his inability to complete as simple a task as arriving at work on time could surely denote a loss of autonomy. It is in these ways that modern technology acts as an unseen insidious agent that holds sway over nearly every aspect of our daily lives. Yet, we cannot imagine life without it. Insert any gadget or gizmo at the end of the common, "How did we ever get by before...?" Some might even ask, "How did we ever *survive*?" We, therefore, welcome the presence of technological authority due to a feigned belief that the mastery is ours, that we somehow have the upper hand. Not unlike the frightful realization made by the young scientist, V. Frankenstein, I argue that we are both powerless and indentured to the very thing we have created.³

³ There are indeed parallels to be drawn between modern technology and Frankenstein's monster. Both are *brought to life* by way of egoistic human desire. Both developed into unruly, autonomous agents with

Regarding modern technology, many might ask, “Why would we want to live without it?” Computers, smartphones, tablets, home security systems, central heating, and virtual assistants such as Alexa that integrate and automate many of the aforementioned devices actually make life “easier” and more efficient. I will argue though that we do not use modern technology because we want to, we use it because we *have to*. I realize this is a large claim, so perhaps it can best be understood by another example.

Consider Jill, a typical wife and mother of two who lives in the suburbs. Sadly, her husband loses his job, which served as the family’s sole source of income, something to do with his persistent tardiness. Jill is thereby forced to seek employment herself to keep the family afloat financially. Having been a housewife for most of her years, she hasn’t any relevant job skills but sees herself as a quick learner. She feels that finding a job shouldn’t be too much trouble. Jill purchases a copy of the local newspaper and combs through the want ads. Upon answering a posting for a receptionist position, Jill is asked to come in for an interview. She finds herself sitting across the desk from the personnel director of a small firm. As the tasks required for the position are explained, she feels confident she can complete them easily. She feels there is a good chance she will get the job. That is until the interviewer asks one final question, “Are you proficient in the use of computers?”

An ever so subtle panic comes over Jill as she realizes she cannot answer in the affirmative. She explains that though generally unfamiliar with computers, she is a quick study and will do whatever it takes to familiarize herself with the novel device. The interviewer’s previous optimism fades into a grimace of doubt as he explains that having relevant computer skills is a *necessary* qualification to be considered for the position. He explains in a matter of fact way that the company just doesn’t have time to conduct such training with a new employee. Jill’s lack of technological knowledge has rendered her unemployable, and, therefore, her family’s financial security is jeopardized. Jill’s inability to secure employment due to lack of technical training results in an undeniable loss of autonomy.

essentially destructive capabilities. Both demand human attention, care, and consideration, and neither will tolerate neglect.

Perhaps you are thinking that this be a far-fetched example, but is it really? Is it not simply an honest appraisal of the way society has evolved? Initially, I claimed that those who choose not to engage with modern contrivances enjoy a higher degree of autonomy than those who do, but if such a person wishes to be a part of society as it stands, she will always be faced with pitfalls similar to those encountered by Jill. This is what makes the oppression imposed by modern technology so incredibly far reaching and pernicious. Technological oppression is not merely an individual obstacle; it operates on a *societal* level. I would wager it is not the case that *everyone* in an advanced technological society is computer literate. It is however the case that those without relevant computer skills struggle to compete in today's job market.⁴

Many Americans, however, do own and use computers, about 86%.⁵ So we now arrive at an important question. What is it about the use of these devices that we find so necessary? I argue that modern technology has been so thoroughly integrated into the fabric of our society that to live without these systems would be impossible. Though taken completely for granted, nearly every aspect of our lives is automated: the way you navigate through traffic signals; the manner in which your utility bills are calculated and delivered, how you get your paycheck; the way you spend your money; the methods by which you purchase goods and services; your driving record, criminal background, credit score, and educational history. These and countless other facets of existence in an advanced technological society are absolutely grounded in and dependent upon machines, computers, and the information superhighway that connects them all. There is an undeniable *dependency* upon modern technology to live the way we do. Any objection to this truism requires an answer to the question, "What would we do if the power were *shut off*?"

In just the past decade, modern technology has manifestly exploded in terms of both availability and ownership. Data reported in June 2019 by the Pew Research Center gives us

⁴ For more on this, see Alex M. Johnson, "Lack of Computer Skills Foils Many Job-Seekers: Technology Economy Proves a Barrier for Older, Less Educated Applicants," *NBC News*, July 29, 2010, http://www.nbcnews.com/id/33106445/ns/technology_and_science/t/lack-computer-skills-foils-many-job-seekers/.

⁵ Camille Ryan and Jamie M. Lewis, "Computer and Internet Use in the United States: 2015," U.S. Census Bureau, last modified September 2017, <https://www.census.gov/content/dam/Census/library/publications/2017/acs/acs-37.pdf>.

the following statistics concerning ownership of information devices such as smartphones, tablets, and computers in the United States:

The vast majority of Americans—96%—now own a cellphone of some kind. The share of Americans that own smartphones is now 81%, up from just 35% in Pew Research Center’s first survey of smartphone ownership conducted in 2011. Along with mobile phones, Americans own a range of other information devices. Nearly three-quarters of U.S. adults now own desktop or laptop computers, while roughly half now own tablet computers and roughly half own e-reader devices.⁶

This should not come as a surprise. For most of us, the use of mobile technology is both ordinary and ubiquitous in affluent nations such as the United States. But recall my earlier claim that it is those who are believed to experience the highest levels of freedom that are actually the most regulated. Arguably, this category includes white males with a college education of considerable earning capacity. Here are some more statistics made available by the researchers at Pew:

Of men in the U.S., 84% own smartphones and of women 79% do. Of adults both male and female, 82% of white, 80% of black, and 79% of Hispanic persons own smartphones. In terms of education level, of adults without a high school diploma, 66% own smartphones. Of those with a college degree, 91% do. Finally, of those who make less than \$30,000 annually, 71% own smartphones and that number leaps to 95% for those who earn more than \$75,000 annually. What is particularly interesting to note is that of adults aged 65 or older, 53% own smartphones and of those aged 18-29, 96% do.⁷

What can we surmise from this data? Some obvious points come to mind. It seems that the use of smartphones is higher, though not by much, amongst white males and adults with college educations that are of a relatively higher earning capacity than other demographics. The large gap between numbers of smartphone users aged 18-29 and senior citizens should be taken as tangible evidence of modern technology’s swift rise in popularity amongst young adults. It could certainly be argued that users in this age range are a key demographic for retailers of mobile technology.

What I am presenting is both obvious and obscure. We seem to be simultaneously aware and unsuspecting of the tremendous growth of modern technology. My demonstrating

⁶ Pew Research Center, “Mobile Fact Sheet,” Pew Research Center Internet & Technology, updated June 12, 2019, <https://www.pewinternet.org/fact-sheet/mobile/>.

⁷ Pew Research Center.

the fact that the use of mobile devices has risen exponentially in the past ten years comes not as a surprise but is rather considered a praiseworthy advance regarding societal evolution. Having things like smartphones, and tablets, and computers, and cars, and flat screen televisions, and houses with automatic garage door openers, and home automated control systems puts one in the category of being affluent. The possession of these types of goods and services is typically reserved to those in positions of socioeconomic power indicating that they may enjoy a higher degree of freedom than others. But turning back to the statistics given above, there is not much variance between those considered to be affluent and those bracketed in the lower or middle classes when it comes to smartphone ownership. This seems to tell us two things. Firstly, that mobile technology is affordable, and secondly, that it is prevalent. The popularity of these information devices, I argue, is not indicative of our actual interest but rather points to the necessity of having it in our lives.

The overarching task of this thesis is to show how we—through the continued integration of modern technological advances—surrender our autonomy to the very processes we employ. I accomplish this by exploring the relevant claims made by other contemporary philosophers on the subject of autonomy and technology in general and will, myself, expose a variety of ways in which modern technology is granted control over our lives. I follow these notions of autonomy and control closely and in so doing establish my argument that modern technology operates as subtle and pernicious form of oppression in our advanced technological society. I also look at what it means to be human in such a society and how our adoption of technological methodologies has put us in the position to be oppressed in the first place. I explore what might be said about our very nature as “thinking intelligent being[s],”⁸ (to borrow a phrase from Locke) endowed with reason and reflection to knowingly live by a standard that authors our own oppression. The findings of this particular analysis will lead to my argument for what might lead to our *independence* from that which we falsely claim to control.

⁸ John Locke, *An Essay Concerning Human Understanding*, ed. Kenneth P. Winkler (Indianapolis: Hackett Publishing Company, 1996), 138.

For the reader who remains skeptical of my observations, I should take a moment here to explain my use of the term ‘oppression’. To start, I offer the words of feminist philosopher, Marilyn Frye, to lay the definitional groundwork:

The root of the word ‘oppression’ is the element ‘press’. *The press of the crowd; pressed into military service; to press a pair of pants; printing press; press the button.* Presses are used to mold things or flatten them or reduce them in bulk, sometimes to reduce them by squeezing out the gasses or liquids in them. Something pressed is something caught between or among forces and barriers which are so related to each other that jointly they restrain, restrict or prevent the thing’s motion or mobility. Mold. Immobilize. Reduce.⁹

Considering this, we begin to see what it means to be oppressed. For my project, I am specifically concerned with what I have referred to as *technological* oppression. This particular form of oppression operates as a self-levied forgoing of autonomy in favor of convenience, a relinquishment of freedom for efficacy that operates as a systematic force designed to confine humans to a *technological* manner of existence.

The methodology of technological oppression is accumulative and sedimentary in that once a particular contrivance achieves widespread use, it can no longer be lived without and operates as the latest sheet of bedrock upon which modern technology can advance with impunity. Accordingly, we are forced to exist in multiply layered ways that become self-instituted in “virtue” of modern technology’s advancement. Like individual cranks of a vice, upon the advent of each new form comes another stratum of subtle oppressive force. And the more we conform to the ever growing demands of advanced technological society, the less autonomous we become, thus resulting in a diminished use of human faculties to accomplish tasks that we are fundamentally capable of *in virtue of being human*.

Contemporary philosopher of technology, David Skrbina, has written on this topic at length in his book, *The Metaphysics of Technology*. In his conclusion, he uses the analogy of a pyramid to describe the layers of what we might call a *deterministic* layering of technological oppression:

A pyramid is a monument to creativity, but it is also a tomb. We are becoming entombed by technology. Each new layer that is laid upon us becomes like one

⁹ Marilyn Frye, *The Politics of Reality: Essays in Feminist Theory* (Trumansburg, NY: Crossing Press, 1983), 2.

more coat of golden varnish on a fine oak coffin. Inside, still alive, we gasp for air. And not only us—all of nature is progressively being buried alive. At best we can hope to bear the growing weight with a modicum of dignity; at worst, we and all the planet become consumed by this expanding autonomous power.¹⁰

Made clear here, there are consequences to technological conformity. With dulled minds and un-calloused hands, we become reduced to mere subsistence while an unimaginably vast network of binary integers assumes control.

DIFFICULTY IN DEFINITION

Talk of technology is common. Yet its definition is abstruse. Does the word ‘technology’ refer to bare mechanisms or to the processes they carry out? Is technology simply the myriad gadgets, machines, and devices that complete tasks? To be sure, even the invention of the wheel falls into the scope of technology, but following that logic, so does the invention of bacon and the manipulation of fire. Propositions like “The files are in the computer” and “The calculator is a technological object” are telling of something more than the objects described. Technology is also an application of knowledge; it is considered a branch of expertise employed by engineers and scientists. We have technological means of discovery, invention, and integration. We take technological routes in problem solving and advance whole societies in technological directions. Considering this, we start to see that there is more to technology than simply its constituent gadgets and practices.

Given this, we may be tempted to think of technology simply as a *category* that encompasses all of its innumerable forms. Fundamentally, a bicycle is nothing more than a mode of transportation. It is a form of technology. But what makes it technological? There is the fabrication and assembly of its parts, but there, too, are the mathematical concepts employed in its manufacturing process. There is its purpose for the end user as a conveyance, and though this may be the result of its existence, it, too, is the origin. For were it not for the manufacturer’s conception, such a telos would never be actualized.

Technology *does* more than *is*. A hurricane is a precise concentration of cyclical winds that move at a rapid rate and maintain propulsion within close proximity to ocean surfaces. With nothing in a hurricane’s path, it is a beautiful and majestic spectacle of nature.

¹⁰ David Skrbina, *The Metaphysics of Technology* (New York: Routledge, 2015), 273.

Upon landfall, however, a hurricane instantly becomes a wildly destructive force capable of leveling whatever might stand in its path. It is a force of nature, and in so being is a natural part of the world. It is difficult to ascribe agency to its fabrication, and further difficulty arises when we ponder its purpose. Therefore, a hurricane's true essence remains veiled. Any telos conceived of it can only come *post hoc ergo propter hoc*.

We assume confidently that a hurricane does something, but unlike technology, it *is* more than it *does*. We consider it to be a "natural" disaster. This consideration is only arrived at by way of its affect upon us. A hurricane considers not what it will do nor the consequences left in its wake. In fact, a hurricane considers nothing, for it is not actually *alive*. Its destructive force is only understood and examined via *post hoc* analysis by conscious beings such as ourselves. This is why we name them. We cannot imagine something without consciousness *doing* anything to us, so we erroneously grant it this attribute to make sense of what we think it does to us, which I have stated, is nothing. Existence does not presuppose agency.

I argue that technology has the same potentiality for destruction as a hurricane, just in a more insidious and subtle manner. The main point of commonality between hurricanes and technology is that both are *forces*. Technological force, though, is vastly more diverse when we consider it in the modern sense. Its capacities are both far reaching and intricate; its persuasion deep and influence powerful. Unlike the natural force of a hurricane, we can correctly surmise that technology is actively *doing* something. It is not a mere happening. Though not unlike the hurricane in its lack of rationality, technology is *spawned by* rational means.¹¹

So though the analogy of a hurricane may be instructive, it only provides distinction. Regarding technology, we still remain at the forefront of difficulty in definition of both word and concept. Of one thing we can be sure, to say that technology is merely that which encompasses human made devices, machines, and technical processes is mistaken, for such a

¹¹ Interestingly, much scientific data provided by the Intergovernmental Panel on Climate Change suggests that the increased frequency and pervasiveness of hurricanes has come as a result of global warming, which is a fundamental consequence of modern technological innovation and practices. For more on this, see "Climate Change 2014 Synthesis Report Summary for Policymakers," Intergovernmental Panel on Climate Change, accessed March 23, 2020, https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf.

description can only tell part of the story. I feel a more robust start will be to say that where life is the animating feature of plants, animals, and any other *living* organism, technology can be seen as those powers and forces that explain and drive forward the functions and activities of inorganic contrivances. My formal definition of technology will be constructed in Chapter 3.

THE CONTINENTAL APPROACH

Met with both skepticism and praise among philosophers of technology, the work of continental philosopher, Martin Heidegger, remains the most influential in the field. He tells us that in our questioning concerning technology, it will be advantageous to formulate a free relationship with it. To even begin an analysis requires one to detach from or leave behind any preconceived notions of technology. Put simply, for one to question technology, one must not think in a technological manner. In a profound and paradoxical statement, he tells us, “the essence of technology is by no means anything technological.”¹² Meant here is that our attempts to get at the essence of technology will be in vain if our search is conducted using a technological frame of reference. On Heidegger’s account, technology transcends mere technological devices, their relationship with one another and with us. Whether one is a luddite or a technophile, one must put technological thinking aside to truly understand its essence.

Heidegger forges a meticulous path towards giving his conclusion on what this essence is. Of technology itself, he offers a preliminary twofold definition to which most would concede: first, that technology is a means to an end and is, thus, instrumental; secondly, that it is a human activity and, thus, anthropological. He maintains that as a shallow interpretation, the two definitions belong together, for it is true that staplers, trains, and tomahawk missiles are means to ends and certainly involve human activity, but Heidegger will ultimately steer the essence of technology towards a more causal framework.¹³

¹² Martin Heidegger, *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York: Harper Perennial, 2013), 4.

¹³ Heidegger, 5.

It is argued by Heidegger that the instrumental definition presupposes *causality*. “Wherever ends are pursued and means are employed, wherever instrumentality reigns, there reigns causality.”¹⁴ Using the example of a silver chalice, Heidegger outlines four causes first brought to light by Aristotle: (1) the *causa materialis*, the silver of which the chalice is made; (2) the *causa formalis*, the form it is to take; (3) the *causa efficiens*, the silversmith’s pondering and conceiving of the process by which the chalice is crafted; and (4) the *causa finalis*, the purpose or *telos* of the finished product, in this instance, the chalice’s use in ceremony.¹⁵ When considering his use of these causes, though, we must consider two things. First and most evidently, all four causes are fundamentally linked. They all lend themselves to one another in a special way. The second consideration involves this relationship specifically. He will maintain that what Aristotle meant by “cause” involved the manner in which something is responsible for, or more appropriately to what something is *indebted*.

Heidegger’s invocation of this indebtedness serves as a manner of *revealing*. The essence of technology is just that, a mode of revealing. It is that which brings forth from concealment. But it is not a pure revealing as is the blossoming of a rose from its own bud. It is an active, *challenging* revealing that draws from nature her resources to create technological means. This type of revealing he terms “enframing.” The main goal of enframing is to challenge forth those unconcealed elements from nature and store them into what Heidegger calls “standing-reserve.” In other words, the compulsion of the modern man as dictated by enframing is to have always at-hand that which is revealed for our continued use. As an example, Heidegger points out the function of a hydroelectric plant in its harnessing (revealing) the current of the Rhine river as stored, usable energy. In so doing, the plant distributes power to distant surpluses of this stored energy to be used by all in their homes and businesses. And quite accurately, the origin of this power is also seen as standing-reserve. “In the context of the interlocking processes pertaining to the orderly disposition of

¹⁴ Heidegger, 6.

¹⁵ Heidegger.

electrical energy, even the Rhine itself appears as something at our command.”¹⁶ “This gathering concentrates man upon ordering the real as standing-reserve.”¹⁷

This is the foundation of his argument that humans are just as much a part of technology as the role their activity plays in it. He invites us to consider the *all too human* endeavors of envisioning, creating, and the subsequent implementation of technological means. For without human intervention, nature would remain concealed, un-challenged. But we seem not to have that level of restraint. We seem to have this compulsion to challenge forth and order that which is presented by nature into something we might not only use but also something to which we can have continuous, uninterrupted access.

Also essentially revealed in modern technology is the notion of a maker, the *causa efficiens*. Consider Paley’s *watch*.¹⁸ Impressed upon its surface and that of every other human-made contrivance is a human fingerprint. We can now see why Heidegger initially brings up the instrumental and anthropological conception of technology and how it serves only as a precursor to what he argues to be the true essence of technology. A deeper analysis of Heidegger’s findings will be conducted in the following chapter.

TECHNOLOGY: MODERN VS ANTIQUATED

The focus of my project is on what I have already referred to as *modern technology*. Leaving behind the phenomenological framework constructed by Heidegger for the moment, let us consider that under the umbrella of modern technology are situated machines and devices that though invented by humans perform functions autonomously of the user. There, too, exist intangible forms of modern technology such as software, mobile applications, social media platforms, and the content of experience had in virtual reality. And though dependent on devices for their existence, they should not be left outside the overall schema. One feature that all forms of modern technology have in common is that they require human interaction to guide their various processes. Modern technology, however, undeniably works

¹⁶ Heidegger, 16.

¹⁷ Heidegger, 19.

¹⁸ William Paley, *Natural Theology: Or, Evidence of the Existence and Attributes of the Deity, Collected from the Appearances of Nature*, ed. Matthew Eddy and David M. Knight (Oxford, England: Oxford University Press, 2006), 7-8.

independently of and far surpasses human ability. One fine example of this is the *automobile*. The word alone tells us everything we need to know about its function. It is of French origin and simply means “self-mobile.”¹⁹ It may require the application of pressure to its gas pedal by a human foot, but as long as pressure is maintained, the automobile propels itself. The autonomous functionality of many modern devices requires even less exertion of energy the mere pressing of an on/off switch will do.

Modern technology differs from what I refer to as *antiquated* technology. Of the antiquated variety could be considered those technologies that complete beneficial tasks but rely heavily upon the exertion of energy by their users. Consider the humble typewriter. No doubt, this is a form of technology. It clearly serves as a means to an end and incorporates human activity. But in sharp contrast to forms of modern technology, it does nothing without human assistance and the exertion of energy in all of its processes. This piece of antiquated technology, though incredibly effective and popular during the time of its use, was inevitably replaced by the electronic word processor and, ultimately, by the computer. The latter two devices require electric power and have on/off switches. Human power is not enough. To operate, they require the consumption of something more than human energy and consequently exemplify more of Heidegger’s standing reserve. So whether it be petroleum based gasoline for your car, natural gas for your water heater, or the provision of 120 volts of electricity to power your computer, something in addition to human capacity is required. Notice that when using a typewriter as opposed to a computer, one has much more control in both function and the finished product. This retention of control is tacit in the use of all antiquated technologies and, thus, in their use, one retains more autonomy. In writing a letter on a typewriter, I have access to and understand all of the machine’s processes. I depress a key, a lever is engaged, and a metallic mold of the corresponding key stamps ink upon the paper. I am in control of the finished product as well in that the harder I hit the key, the bolder the impression of ink on the paper will be. When writing the same letter on a laptop computer and printing it wirelessly, I have no idea of the processes involved and have much less control in what the final product will look like.

¹⁹ *New Oxford American Dictionary*, 3rd ed. (2001), s.v. “Automobile.”

TECHNOLOGICAL EVOLUTION

To cook on a fire requires skill and attention, not to mention the exertion of energy required to cut and gather wood. To cook using an oven requires turning a dial and setting a timer. A microwave's function requires almost nothing of the user. What must be noticed here is that the stove *evolved* from the campfire and the microwave from the stove. Recall the evolution of the computer from the typewriter. We seem to think of the evolved product as being better, more efficient, and requiring substantially less effort in use than its predecessor. Yet, the document a typewriter produces is arguably more *authentic*. The specific, individual imperfections produced by this antiquated form of technology make the product "special" in some way. There is a recognizable distinction between an original hand-typed manuscript created by a famous author and the mass-produced printout of the same work. Additionally, the former will always carry with it a greater inherent value than the latter. From this, we can surmise that the author gains more satisfaction from the final product if the work involved in its formation is more labor intensive.

Notice too that the evolution from antiquated to modern forms of technology comes with an alteration in use of one's mental capacities. There are certain skills and specific attention requirements that are made obsolete in the shift from antiquated to modern technological devices. Required for the use of the typewriter is knowledge of how to set margins, the installation of an ink ribbon, and the requirement of regular maintenance to ensure the machine continues to work properly. One of the key considerations made when any particular form of technology evolves in such a way is how we might make *obsolete* these types of skills and requirements for special attention. Involved in the evolution from typewriter to electronic word processor to computer, there is this notion that since the machine completes these essential tasks for us, *we no longer need to think* of them. In a very special way, the machine gains autonomy as it evolves. With each step along the path of technological evolution, more and more, *the machine is entrusted to do the thinking for us*. Here we can see how the progression of technology works not only to evolve its own processes but also ours.

The principal aspect of technological evolution to be recognized here is in its deterministic capabilities. The notion of *technological determinism* invites us to think of the many ways in which technology shapes the way we function and evolve both culturally and

as a society.²⁰ A classic example of this is the advent of modern means of transportation. Prior to the widespread use of cars, people lived in smaller communities that were separated by much greater distances. Before the invention of the locomotive engine, the divide between cities and towns was even greater. Currently, travel to the other side of the world is possible to plan for and carry out in a single day. The point is that as technologies advance and evolve, they influence and inform our own evolution as well. You might think—as many do—that this promotes a *higher* degree of human autonomy in granting us the ability to travel great distances easily and accommodate further growth of infrastructure and economy, but we must take the long view. Sure, technological evolution does make possible many things that previously were unheard of, but with the advancement of modern transportation alone come wildly accelerated population growth, maddening traffic congestion, and air pollution that contributes greatly to global warming.

THE WILL TO MASTER

With a clear distinction drawn between modern and antiquated technology, we begin to see more clearly the connection we have with the evolution of technology and its advancement. The very notion of evolution presupposes advancement for it would make no sense to evolve to a less advanced state. Thus, the two are mutually codependent. But the question that often arises when considering evolution in general is one of origin, or perhaps more appropriately, of *influence*. Is it the case that we influence technological advancement, or could it be that its advancement influences us? Circular as this line of questioning may seem, I argue it will be necessary to arrive at the conclusion that once set in motion, it is the autonomy of modern technology that influences us and not the other way around.

It is our nature to be curious and, hence, inventive. However, at some point, an invisible line was crossed between realizing our ability to control nature and the necessity to do so. It was no doubt a pivotal point in the arch of anthropological evolution when humans gained the ability to control fire, and it has clearly served us well. Our manipulation of nature

²⁰ For more on technological determinism, see Robert Heilbroner, “Do Machines Make History?” *Technology and Culture* 8, no. 3 (July 1967), https://www-jstor-org.libproxy.sdsu.edu/stable/3101719?seq=1#metadata_info_tab_contents.

is oft seen as a commendatory turning point in our evolution as a species. To be sure, many non-human animals manipulate nature as well. This can be seen in the making of dams by beavers and nests by birds. I argue, though, that no non-human animal goes to the lengths we have, for none have done so in a *modern* technological manner. This “advanced” mode of innovation I call *the will to master*. Simple manipulation is not enough. We humans seem to have the incessant desire to *control* natural resources, and as Heidegger suggests, to “challenge” and have them always at our fingertips. Though in early times, the will to master could have been said to come from our inherent curiosity and inventiveness, it quickly developed into a shared compulsion to take the same inventiveness always further. There seems to be palpable lack of satisfaction involved with, and thus becomes at the same time, that which fuels technological advancement. When we consider the growth of modern technology, the phenomenon becomes ever more pervasive. Upon the inception of any new technological advancement, we become unable to live without it. Yet work is always being done to advance the state of technology further so that we can have some newer, more efficient manifestation to subscribe to. Put simply, we relinquish control to the very thing that we sanctimoniously uphold the mastery of.

Karl Marx and Friedrich Engels rightly indicated that industrialization as structured by the bourgeois class oppressed and enslaved the proletariat. Though a historically astute observation, their mistake was made in identifying the industrial capitalist rather than industrial technology itself as the oppressor.

Modern Industry has converted the little workshop of the patriarchal master into the great factory of the industrial capitalist. Masses of laborers, crowded into the factory, are organized like soldiers. As privates of the industrial army they are placed under the command of a perfect hierarchy of officers and sergeants. Not only are they slaves of the bourgeois class, and of the bourgeois State; they are daily and hourly enslaved by the machine, by the overlooker, and, above all, by the individual bourgeois manufacturer himself. The more openly this despotism proclaims gain to be its end and aim, the more petty, the more hateful and the more embittering it is.²¹

²¹ Karl Marx and Friedrich Engels, *Manifesto of the Communist Party*, ed. Samuel H. Beer (New York, Appleton Century Crofts, 1955), 17.

Marx and Engels clearly felt that industrial technology played a part in the oppression of the proletariat class, but their claim of the workers being “enslaved by the machine” serves only as a buildup to the more dominant claim implicating the bourgeois manufacturer as the oppressor. But isn’t it clear that both parties in this instance are “enslaved” by modern technology? It is my contention that the industrial capitalist is subordinated in exactly the same manner as is the proletarian. For in what manner could the bourgeois manufacturer exhibit his will to master without the machines he finds necessary to “enslave?” If it can be agreed upon that he has more at stake, *viz.*, his dependence upon the proper functioning of his factory equipment, the bourgeois manufacturer is under a greater degree of control than the workers he aims to dominate. If for any reason, one or more of the machines required for the manufacturing process break down, the working class proletarian is under no requirement to repair it. She is unquestionably less affected. For as I have mentioned previously, the more one makes paramount the superficial utility modern technology presupposes, the more regulated one becomes; and conversely, it is those who remain indifferent to such utility that tend to experience the highest degree of autonomy. I argue that what comes with such a denial is the truest expression of *free will*.

UPDATES AND UPGRADES

I have argued that once a specific form of modern technology is introduced and made available, we are unable to resist its use. Moreover, the instant a *new version* of existing technology is presented, the previous one is quickly cast aside for its predecessor. Consider your smartphone. No matter how fast its processor, how many megapixels its camera has, or how intuitive the interface, if given the opportunity to upgrade to the latest version, most will take it.

Notice how this differs from antiquated forms of technology. Say you have a rake. You’ve had it for years. Each autumn you collect your old friend from the tool shed, and he helps you pile and collect the fallen leaves in the same manner he did the previous year. On occasion, you find yourself in the hardware store for whatever reason and without a thought walk past displays of newer, fancier, and possibly more efficient rakes. Why does it not cross your mind to get the latest version of something like this? I would argue the answer be that the rake in your toolshed *still works*.

Yet, it is commonplace (especially in tech culture) to *upgrade* one's smartphone to the latest version even while the one in hand works perfectly well and could presumably do so for a long time to come. This is especially true of specific applications and programs. We are constantly prompted to update to the latest version. Consider the requests to "auto update" applications on your smartphone. Consider the implications of your smartphone's ability to make a request in the first place. Most crucially, consider your tendency to *respond* to such a request. Though seemingly benign, this is a clear-cut instantiation of autonomy-firmly-grasped by modern technology. It also stands as further supporting evidence of my claims about the interactive relationship we have with it.

People feel compelled to have the latest and greatest products when it comes to modern technological devices. We are conditioned to have this obsession by both the media and society as a whole. Within tech culture, it would seem almost impermissible to have an iPhone three versions older than the one currently available. Those who are not "up to date" on these forms of technology might even be teased or ridiculed by friends and colleagues within their social group. Simply put, if you are not up to date on modern technological devices, you do not "fit in" to modern advanced society. This is especially true amongst teens and young adults. Unsurprisingly, these happen to be the ones forging the path of technological advancement.

Some may find my claims to be controversial, but carefully consider the distinctions I have made between modern and antiquated forms of technology. Try to recall an instance in which a person was even congenially criticized for the type of map and compass she used. The very notion of seeing someone on a trail using such contrivances to navigate is almost laughable. You can almost hear the mutterings of other hikers, "Why doesn't he just get a GPS or a navigation app on his phone?" This is the line of demarcation between antiquated and modern technologies. It is the common practice of replacing something that functions perfectly well with something that functions *automatically*. Where a properly functioning map and compass require no upgrade process, the navigation app on your phone is updated regularly and in most cases, automatically.

This impulse to upgrade has been around for some time, however, its execution hasn't always been so immediate. One was seemingly fine with, and in fact grateful for, the old sturdy vacuum tube radio that served to entertain the family with shows like *True Detective*

Mysteries and Tales of the Texas Rangers. Though television was introduced in the late 1940s, people didn't run to the stores to buy one right away. If people were lucky enough to have a radio, it seemed to suffice for some time before purchasing a TV. Even upon the purchase and regular use of a television, it would have seemed foolish to just discard the old radio, for it *still worked* and served a purpose. This seems to suggest that not only is technology itself evolving, but so too is our relation to it. The way we think and feel about technology has changed, and so have our demands. We now, due to the availability thereof, demand that a lesser quantity of sleeker devices integrate the myriad old forms of technology that used to take up several cubic feet in one's entertainment center. Not too long ago, it was commonplace to have a TV, VCR, DVD player, CD player, and stacks of media disks taking up valuable space in our homes. Now it seems all one requires is a flat screen television or a laptop that contains all of these things. And so the cycle continues, our demand for more integration grows stronger as more integration becomes available.

FALSE NEEDS

The intoxicating allure of modern technology is a powerful force in the consumer market. Far and away, its most effective method of persuasion is that of *advertising*. Operating as societal hypnosis, it plays a crucial role in the rapid growth and availability of modern technological devices. Philosopher and political theorist, Herbert Marcuse, had similar thoughts on the matter. Distinguished from those of a true nature are the ones he labels "false" needs, "[T]hose which are superimposed upon the individual by particular social interests in his repression: the needs which perpetuate toil, aggressiveness, misery, and injustice."²² When considering our relentless compulsion towards technology as a means of satisfying false needs, the recognition of true ones comes steadily into question. "Most of the prevailing needs to relax, to have fun, to behave and consume in accordance with the advertisements, to love and hate what others love and hate, belong to this category of false needs."²³ As Marcuse illustrates, our relation to advertising and mass marketing is

²² Herbert Marcuse, *One Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (Boston: Beacon Press, 1964), 5.

²³ Marcuse, 5.

unquestionably one of compliance and authority. Dictated by modern technology's employment of an intricate manifold of media outlets, we are told what to buy, use, consume, and create. We are told how to live. There is an underlying and insidious pattern of insecurity amongst consumers guiding our belief that if we acquire *the right things*, we will feel *the right way*. We seek salvation in the very thing that thrives on our continued obedience. We seek freedom from that which has us steadily under its influence. "The result then is euphoria in unhappiness."²⁴

ROAD MAP

I hope, thus far, to have painted a compelling introductory picture of my central claims. Primarily, that modern technology gains autonomy through our advancement and continued integration thereof and consequentially stands to operate as a prodigious force of oppression. Also notice that it does so under the illusive guise as a means to assist and guide our modern endeavors. If for any reason, these notions are unclear, worry not, the thread will continue to unravel. Before moving on, I would like to give a brief outline of what will come to pass throughout the remainder of this project.

In Chapter 2, I lay out a brief historical analysis of two 20th-century philosophers and their views on technology. Here I do not raise objections to the authors mentioned; I rather seek to gain a steady grasp of their claims and arguments so as to avoid duplication. The goal will be to point out connections between their views and identify relevant foundational concepts that might further develop my own arguments.

In Chapter 3, I demonstrate the ability technology has acquired to operate independently and in doing so gain its own special form of autonomy and control. Careful consideration is given to delineate the role modern technology plays in shaping and controlling human processes and how our ventures in the advancement of society by way of technological innovation carries with it the cost of our own autonomy.

Chapter 4 gives a feminist account of technological oppression. I expose the harmful effects that social media platforms have on women within patriarchal society. I make it clear that this purportedly neutral manifestation of modern technology operates as a highly

²⁴ Marcuse, 5.

effective delivery system of misogynistic norms and practices that involve the forfeiture of the user's autonomy to a great degree.

In Chapter 5, I deal exclusively with the notion of control administered by modern technology in the form of surveillance. I explore the consequences involved with regular surveillance practices perpetrated on persons in advanced technological societies. This analysis involves not only audio and video monitoring in the form of corporate surveillance but also the denial of privacy that comes part and parcel with governmental monitoring of telephonic communications and internet traffic. In this chapter, I show how loss of privacy amounts correspondingly to loss of autonomy.

Finally, in chapter 6, I offer my conclusion on the matter. Here I revisit the fundamental claims I have argued concerning autonomy and control throughout the thesis and suggest possible avenues humans might take moving forward to regain autonomy previously surrendered.

CHAPTER 2

HEIDEGGER'S ESSENCE AND JUENGER'S PERFECTION

The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom.

-Isaac Asimov

Isaac Asimov's Book of Science and Nature Quotations

Albeit a tiny sapling amongst a forest of towering established disciplines, the philosophy of technology has been around longer than one might think. I argue that now is the time for its emergence into the spotlight. More than ever we are seeing it cannot be ignored, and I argue that in the very near future, a more robust examination and critique of its modern form will emerge from the shadows of more mature and established subjects of study. Therefore, it will be important to elucidate what other thinkers have said about technology for two reasons: first, to give the reader a sense of what the philosophy of technology (in the modern sense) and its exploration has looked like for two thinkers that have vastly influenced my own research. And secondly, out of respect and reverence for those who have labored to put their arguments into the world, I wish not to duplicate their claims erroneously.

As the emphasis of this project is on modern technology, I highlight only the arguments of those whose concerns place emphasis on similar trajectories. It should otherwise be known that as far back as Plato and Aristotle there has been talk of technology and their contributions should not go unrecognized.²⁵ I merely wish to maintain a tight and organized focus on the negative implications of *modern* technology and will thereby only be

²⁵ David Skrbina gives a detailed analysis of these thinkers' early insights regarding technology in *The Metaphysics of Technology*, 22-26.

looking at two thinkers who I argue have made relevant contributions within such a scope. To be sure, there is an abundance of work dedicated to the advocacy of technological advancement, and I would implore anyone interested to take up the study thereof.²⁶ But as my project involves a critique of technology and not a critique of its advocates, I shall have to save the exploration of these thinkers' views for another endeavor.

Within the sphere of contemporary philosophy, many assume that Heidegger was the first to draw any major conclusions on the dangers of modern technology. Indeed, the arguments he made in *The Question concerning Technology* (QCT) regarding its essence are among the most popular. But I would like to begin my historical analysis with another German thinker whose work not only preceded but I argue played an influential role in the development of Heidegger's.

Friedrich Georg Juenger held an unabashedly critical stance towards modern technology. Though I would shrug from labeling him a philosopher in the academic sense, the analysis given in his book, *Die Perfection der Technik*, comes about as the work of a cultural critic gone philosophically rogue. It is clear that he has done his homework on known thinkers and their seminal claims. He refers to Plato on the distinction between science and applied mechanics.²⁷ Frequently, David Hume is referenced on notions of causation,²⁸ personal identity,²⁹ and the association of ideas.³⁰ Mention is also made of Immanuel Kant's claim that time is given as an a priori concept and how this conflicts with Isaac Newton's absolute version thereof.³¹

The German title of Juenger's book can be misleading. What is meant in his native tongue by "perfektion" is *completion, fulfillment, or absolution*. The title itself raises the concern with which the work's pages are riddled, namely, technology's autonomous ascent to

²⁶ A good place to start here would be with Friedrich Dessauer, "Philosophy in Its Proper Sphere," in *Philosophy and Technology*, ed. Carl Mitcham and Robert Mackey (New York: Free Press, 1972).

²⁷ Friedrich Georg Juenger, *The Failure of Technology*, trans. Frederick D. Wilhelmssen (Chicago: Henry Regnery Company, 1949), 74.

²⁸ Juenger, 59.

²⁹ Juenger, 127.

³⁰ Juenger, 101.

³¹ Juenger, 37-39.

absolute power over humans and the natural environment. As put by Frederick D. Wilhelmsen in the book's introduction, "The German [perfection] simply implies an achievement, a fulness, an actuality of something which now stands completed, finished, altogether on with its own essence."³² Juenger emphasizes that the perfection technology pursues involves precisely what it seems to be best at, making that which it surpasses *obsolete*. He describes this continual process as occurring "with utter disregard for [man's] organic form and structure, which is to say, mechanically."³³ "He is not even cut up like an animal that is taken to the butcher, nor neatly carved and disjointed like a chicken: he is blown to pieces, crushed, torn to shreds."³⁴ Though clearly contemptuous toward technology, Juenger went to great lengths to explicate the power it has over humans. The English translation of his work that came three years after its original publication was titled *The Failure of Technology*.³⁵

In Chapter 1, I touched upon the notion of *autonomy*. I argued that those who are believed to experience the highest levels of freedom are those most regulated by modern technology and that those who lack engagement in such supposed forms of freedom experience the highest degree of autonomy. On what Juenger refers to as the "delusion of wealth," he purports that riches are measured by the amount of freedom they provide. It could be argued effectively that the distinction between wealth and poverty is synonymous with having and a not having of material possessions. He reminds us of the Homeric notion that "Only such riches as are mine by nature can I fully command and enjoy."³⁶ In contemporary society, the delineation of wealth presupposes freedom and, in most cases, the wealthy are those most integrated with modern technology.

³² Frederick D. Wilhelmsen, "Introduction," in *The Failure of Technology*, by Friedrich Georg Juenger, trans. Frederick D. Wilhelmsen (Chicago: Henry Regnery Company, 1949), xiii.

³³ Juenger, *The Failure of Technology*, 133.

³⁴ Juenger, 133.

³⁵ I do not, however, feel that this title gives true credence to its predecessor. It implies that somehow technology is failing. This is certainly not what Juenger meant to purport. Arguably, technology is seen as successful by the technophile in its advancement of society. Conversely, the technophobe would see the failure of technology as an occasion worthy of celebration. Though I am not inclined to place Juenger into either category, what I can say is that his arguments do not characterize technology as failing by any means.

³⁶ Juenger, *The Failure of Technology*, 11.

The difference between the haves and the have-nots arguably is the degree of access one has to modern technology. The wealthy can get an MRI when they are sick or injured; they can make the appointment for such a procedure via laptop or smartphone. They live in a place where such infrastructure is afforded to them easily. The impoverished lack access to such contrivances and thus suffer injury and illness without the ability to be “properly” diagnosed and treated. On the matter, Juenger admits of the naïve conception that “riches in the original meaning are nothing else than the ruling, regal power and force in man.”³⁷ He also recognizes Aristotle’s defining riches as “an abundance of tools.”³⁸ Juenger, though, illustrates this line of thinking as belonging to the masses, those deluded into technological thinking. I argue in favor of the Homeric conception. Devoid of technological means, the impoverished man who becomes ill or injured suffers, but the course of his suffering is unimpeded and he thus remains autonomous. Granting this, we must too concede that his pleasures are arrived at in the same earnest sense and thereby without technological influence or manifestation. He lives and dies *freely*.

Heidegger relied heavily on his notion of technology’s way of “revealing” (which will be touched on in more detail further on in the chapter). In short, this is what technology does fundamentally, it brings forth out of concealment that which was previously concealed. By contrast and years ahead of Heidegger, Juenger speaks of such a revealing in the original sense as manifested exclusively in and by nature. “Rooting, sprouting, budding, blooming, ripening and fruition—the exuberance of the motions and forms of life—strengthen and refresh us.”³⁹ “But the machine organization gives nothing—it gives nothing.”⁴⁰ He speaks of the way mechanization in industry though thought to provide efficient means of production only creates more hunger for more streamlined organization. There seems never to be enough, and with the ability to produce more commodities at a faster rate comes a voracious hunger for still more, a supreme lack of satisfaction is the machine’s chief attribute. “The consuming, devouring, gluttonous motion racing through time restlessly and insatiably,

³⁷ Juenger, 12.

³⁸ Juenger, 12.

³⁹ Juenger, 21.

⁴⁰ Juenger, 21.

reveals the never stilled hunger of the machine.”⁴¹ Though this argument is delivered with both validity and soundness by Juenger, he did not take it to such lengths as Heidegger in his notion of “standing-reserve” that was discussed in the previous chapter. However, this is the first of many claims made by the former that I will argue influenced the development of those made by the latter. One has only to consider their geographical proximity and the timeline in which both thinkers completed their works on technology to see that this is not beyond the realm of possibility.⁴²

Heidegger made it clear that though we may see technology as being merely a means to an end, such a characterization would require working within a technological frame of reference and thereby get us no closer to technology’s essence. “Accordingly, the correct instrumental of technology still does not show us technology’s essence.”⁴³ As was outlined in the previous chapter, he argued that looking at technology in a causal manner would shift the trajectory of our questioning in more accurate direction.

Juenger had similar ideas on the connection between instrumentalism and causation but maintained his focus on *purpose* rather than essence. “Something seems to serve a purpose when the means we employ for the achievement of a certain goal are appropriate to the goal.”⁴⁴ An example of this might be that if I want to plant a tree, I must first dig a hole. Regarding this basic level of analysis, Juenger states, “such a judgement presupposes the knowledge and the understanding of the means and the end.”⁴⁵

In consideration of human beings, flora, and fauna, he claims that we cannot know and determine via use of reason the final purpose they serve. Juenger brings this about to make an important distinction between these organic entities and machines.⁴⁶ “Whatever may

⁴¹ Juenger, 21.

⁴² *Die Perfektion der Technik (The Failure of Technology)* was first published in Frankfurt in 1946. Heidegger’s *Die Frage nach der Technik (The Question concerning Technology)* came out in 1954 while he was working at the University of Freiberg. These two locations are roughly 270 kilometers away from one another.

⁴³ Heidegger, *The Question Concerning*, 4.

⁴⁴ Juenger, *The Failure of Technology*, 69.

⁴⁵ Juenger, 69.

⁴⁶ Juenger, 69.

appear purposeful to us in their behavior, we cannot draw valid conclusions about their final and basic purposes from mere adaptations of their organisms for certain functions.”⁴⁷ Here, Juenger tells us that drawing fallacious conclusions of this type will only lead to self-deception, especially when we consider his initial claim about purpose, namely that making a judgment about purpose presupposes that one has knowledge and understanding of *both* the means and the end.

Here, we might correlate Juenger’s claim to one of Hume’s on *experience* as given by the senses. In *An Enquiry concerning Human Understanding*, he argued that “nature has kept us at a distance from all her secrets, and has afforded us only the knowledge of a few superficial qualities of objects; while she conceals from us those powers and principles on which the influence of the objects entirely depends.”⁴⁸ An example of nature’s secrets is that humans tend to seek nourishment of the body *instinctually* to survive, and to this I will cordially agree. But the point both Hume and Juenger are making is that we cannot draw valid conclusions *why* organic beings such as humans desire to survive in the first place; we haven’t the foggiest notion of their *telos*.

Conversely, we have no difficulty in understanding why we “nourish” our cars with gasoline. It is exclusively by sense and reason that we do so. For without gasoline, the car could not provide its function as a mode of transport. We fully comprehend the purpose of the car because in the same way we created the car, we too established its purpose. Thus, the car’s purpose is evident in a way that ours can never be.

Juenger argues that machines and their achievements are measured exclusively by degree of exact scientific measurement. If this be the case, then we must too agree with his claim that “all purpose is based on prior hypothesis.”⁴⁹ When the technician speaks to the

⁴⁷ Juenger, 69-70.

⁴⁸ David Hume, *An Enquiry Concerning Human Understanding* (La Salle, IL: Open Court Publishing Company, 1988), 77.

⁴⁹ Juenger, *The Failure of Technology*, 67. This is quite obviously a tip of the hat to the work done by Pierre Duhem on the necessity involved with basing the legitimacy of one’s hypothesis on all previous hypotheses. Duhem argued that no single hypothesis as it relates to a physical theory exists in isolation. One established as legitimate can only be done so with the inherent belief that all those hypotheses upon which it is based are legitimate as well. I might easily say that all swans are white based on the fact that every swan I have ever *seen* was white. The legitimacy of this hypothesis is grounded in a matter of fact. However, upon seeing a black swan, the legitimacy of that previous hypothesis is called into question and thus, too, is my original

efficiency of her product, we must call into question every foundational hypothesis that has led her to the current point of inference. “The concept of technological purpose makes good sense, in so far as we can plainly survey the means which our machine tools combine to serve a given end.”⁵⁰ In this way, our tool’s efficiency can be tested, but he argues further, “this efficiency always and everywhere concerns the means only, and not the end that is achieved.”⁵¹ So for Juenger, the efficiency of technological machines can only be tested *mechanically*. For example, a technician might use a micrometer to evaluate the tolerance between the parts of a machine within a thousandth of an inch to confirm its design specifications. The point is that technology can only be *accurately* measured by technological means. These means only achieve purpose technologically. Even at the most minimal level, let us not forget that the yardstick is a technological object. In this sense, the word ‘object’ is meant to express more than just “a thing presented to the mind,” *objectum*.⁵² It is a corporeal thing that has an *objective*, i.e., an end or purpose.

Of particular importance regarding Juenger’s analysis is that Heidegger essentially made the same arguments regarding instrumentalism and the problem with seeking the essence of technology from a technological frame of reference in QCT eight years later. The point is that Heidegger’s work smacks of Juenger’s and thus we can surmise that there is a very real possibility that the former was influenced by the latter.

Though Juenger will readily admit that this exactness of scientific measurement may be par for the course *vis à vis* technology, such exactness can never be applied accurately to organic, non-technological beings. He does, however, suggest that mechanized means of production have a direct influence on human behavior. This applies specifically to automation processes that occur in the factory setting. By Juenger’s account, technological progress is tantamount to the increased prevalence of automation. “The entire work process, up to the finished product, is performed by automatic machinery and with repetitious

conclusion that all swans are white. For more on this, see Pierre Duhem, *The Aim and Structure of Physical Theory*, trans. Philip P. Wiener (Princeton: Princeton University Press, 1954), 199-200.

⁵⁰ Jeunger, 70.

⁵¹ Jeunger, 70.

⁵² *New Oxford American Dictionary*, 3rd ed. (2001), s.v. “Object.”

mechanical uniformity; the entire factory becomes one single automaton.”⁵³ Day in and day out, the factory worker engages with mundane, uncreative, repetitions and most importantly automated means of production. As the process is unaltered and repetitive, so too is the final product. A vast inventory of qualitatively identical products is the goal of the production process.

We can see this principle applied not only to that which is created in a factory but also to all means of production. One of the main considerations a consumer makes in her decision to return to the same business repeatedly is *consistency* of the finished product. One’s regular patronage of a specific restaurant, coffee shop, tavern, or even one’s barber is greatly influenced by the consistency of such an establishment’s product. Our consumeristic patterns are fundamentally determined by this degree of repetitious, unaltered means of production on every level.

But what becomes of those that provide said services? Juenger claims that the factory worker, by means of this monotonous repetitive work, becomes mechanically influenced in his own behavior and thus departs from his natural manner of being in the world. “Inasmuch as he works with automatic tools, his work becomes mechanical and repetitious with machinelike uniformity.”⁵⁴ Imagine a day in the life of such a laborer. By routine, he arrives at the factory at 9am each day, punching a timecard in the same manner and completing the same mechanistic tasks. At noon, a whistle sounds indicating a half hour lunch break to be followed by much of the same work conducted in the morning hours. At 5pm, he again punches the timecard and returns home. The repetitive, monotonous nature of his work might even influence what is done during his “free” time. He arrives home, prepares dinner, and eats it while watching his favorite television programs from the comfort of his easy chair. He feels that the liberty of this distraction is deserved due to the work he had done all day. By ten o’clock, he routinely brushes his teeth and lies down for eight hours of slumber before doing it all again the next day. Day in and day out, this mechanical pattern of behavior

⁵³ Juenger, *The Failure of Technology*, 33.

⁵⁴ Juenger, 34.

supersedes any inkling of divergence due to the habitual patterns established by his work life. His being in the world becomes that of a machine.

In their *Manifesto of the Communist Party*, Marx and Engels argued that the factory worker was being “enslaved by the machine.”⁵⁵ Nearly a decade prior to this claim, Juenger noticed the *teleological* element of technological influence. Not only did he feel that man was being enslaved by industrial methods of production, he shrewdly recognized that the very nature of human beings was being manipulated, modified, and ultimately determined by modern technology. If this be true of the factory worker, then we must surmise that such behavioral influence could bleed over as well to all work that follows such processes. For Juenger, this is a foundational stepping stone that paves the path towards the “perfection” of technology.

The framework in which humans operate and arguably the guiding structure of this perfection is what Juenger refers to as mechanical or “dead” time. Dead time simply amounts to time that is measured by mechanical means, for instance, by a clock or wristwatch. He terms time that goes unmeasured as “biological time.” It is only experienced second-hand by evidence of its passage. As Kant did, Juenger sees time in general as an a priori concept, “the connection between time and things is cut; experience cannot gain admittance.”⁵⁶ Juenger claims that time has no absolute reality in and of itself, no thinghood. Its passage might be indicated by the accumulation of dust on a coffee table, or measured by a clock, but the dust is only *evidence* of time’s passage and the hours and minutes are only *measurements* of its incrementations. Neither point to the actual experience of time in and of itself.

In making this claim, Juenger is wedded to the notion that time represents not any given *thing in itself*, nor is time inherent in the thing. As he puts it, time is “a form without content, an intellectual pattern.”⁵⁷ Though we may lack the ability to put a finger on exactly what Juenger’s biological time is, we can certainly see its consequence in terms of *persistence* through time as being the changing properties of any given concrete particular. A

⁵⁵ Marx and Engels, *Manifesto of the Communist Party*, 17.

⁵⁶ Juenger, *The Failure of Technology*, 37.

⁵⁷ Juenger.

concrete particular can be seen in the common metaphysical sense as an object or entity whose career is temporally bounded. It comes into existence at a certain time, passes out of existence at some later time, and exists at all the times in between.⁵⁸ Examples of such are human beings, animals, plants, chairs, and hamburgers. To understand the process of persistence, consider the ripening of a banana or the wrinkles on an aged face. Changes in properties provide clear evidence of a concrete particular's persistence through time. Metaphysics aside, what is important to note is Juenger's distinguishing characteristic of dead time, namely, its ability to be *measured*.

There is no denying that our measuring of time is by its very nature mechanical and uniform. One's clock is no good if it does not mimic the behavior of all others; *synchronization* is paramount. It is what regulates all of our processes and constricts our natural movement at a basal level. It is what, like repetitive labor, transforms our natural movement to that of an automaton. In this sense, the more machine-like our human processes become as dictated by the constraints of dead time, the more we are determined to machine-like thinking, thus stripping us of our very nature as organic beings. Recall the example given of the factory worker's 9-5 workday. It is rationally expected of him to be at a specific place doing a specific thing during this timeframe each workday. In many cases, the influence of mechanical time is felt the moment we awaken as our sleep is interrupted by an alarm clock, thus setting a mechanically timed standard for the next several hours. This occurs before we even have the opportunity to live life on our own internal timeline. Whatever way in which we might naturally experience time's passage is not even allowed to manifest.

What Juenger wants us to recognize is the distinction between time's passage as it is given mechanically by precision clockwork and the relative understanding thereof as it is experienced by humans. Many factors influence the way we perceive time's passage. When we are busy for instance, time seems to go by quickly. When we are bored, time seems to drag on. For any mechanical device running on precision clockwork, there is no variation. So the more regulated we become by the passage of mechanical, or "dead" time, the more mechanical and un-lifelike our movements and behavior become. This is ultimately what

⁵⁸ Michael J. Loux and Thomas M. Crisp, *Metaphysics: A Contemporary Introduction*, 4th ed. (New York: Routledge, 2017), 223.

makes Juenger skeptical of the uniformly agreed upon notion in scientific thinking that *nature* can be determined by *mechanical* laws, for mechanical laws can only be dictated by mechanical time. On what legitimacy could the astrophysicist's assertion that the universe is 13.8 billion years old rest without her theoretical framework being fundamentally grounded in the concept of a mechanically dictated timeline?

One of the most fascinating and contemporarily relevant assertions made by Juenger was that of the destructive impact that modern technology has on the environment, or as he puts it, "elemental nature." Though he could not have had our current level of cognizance in relation to industrial pollution, deforestation, and global climate change, he clearly foresaw their potentialities via the continued implementation of modern technology.⁵⁹ "Since technology is based upon the mining of resources and since its progress spells the progressive pillage of earth, it is obvious that in a state of perfection, it will practice the most complete and the most intensive exploitation on a planetary scale, a mining of all its resources in the most rational manner."⁶⁰ Juenger maintained correctly that the continuance of modern technological production depends inherently on the drawing upon of natural resources. Simply put, that the trajectory of technological advancement travels in precise parallel with environmental pillage. "Ruthlessly the technician conquers the earth in his quest for power; he confines the elemental forces in engines where they must obey and deliver power."⁶¹ Here Juenger is suggesting not only a mining of resources but also that said resources are mined to be *stored*. It is in this containment that the reserves of energy mined from the earth can be counted upon repeatedly to deliver their power in a transitive manner. "The wells and shafts driven into the earth everywhere to get at her underground treasures, those factories which extract the nitrogen from the air, radium from pitchblende, or simply ways of transforming clay into bricks—all these are taps and drains."⁶²

⁵⁹ Juenger's foresight on the topic of environmental ethics is well noted by contemporary philosopher of technology, David Skrbina. He even went so far as to label Juenger as a "true philosophical pioneer" in *The Metaphysics of Technology*, 79.

⁶⁰ Juenger, *The Failure of Technology*, 177.

⁶¹ Juenger, 121.

⁶² Juenger, 121.

Remarkable enough is the prevision displayed by Juenger, but most important to my analysis are the parallels that can be drawn between his and Heidegger's claims regarding our compulsion to harness and have at-the-ready these natural resources into standing-reserve. Heidegger called this "enframing." Enframing should be seen as a calling-forth, a *challenging* mode of revealing. His use of "challenging" here is meant to reflect generally a calling-forth-to-take-part-in but specifically means a vigorous questioning-as-to-the-true-nature-of. This is how enframing in its active challenging mode differs from perhaps a more conventional unprovoked revealing. An example of the difference between revealing in the conventional sense and this challenging mode of revealing termed by Heidegger as enframing can be seen in the difference between general conversation and forceful interrogation. I might display levity concerning a given situation demonstratively by smiling or laughing, and in so doing, reveal my disposition. But when it is demanded of me by another to divulge how I truly feel about the same situation, I am now challenged to reveal my position.

As he claims that the essence of modern technology is this enframing, the result thereof is storing that which is revealed by enframing into standing-reserve. "Everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a future ordering."⁶³ To elucidate, imagine the way in which a solar panel collects the energy of the sun and transfers it into the containing form of a battery. Other examples would include fuel refineries, nuclear power plants, or simply the humble light switch that we expect with free license *always* to provide us with warm electric light. With all of this in mind, we must consider as both thinkers did, the source of that which we desire to be always called upon. "That revealing [enframing] concerns nature, above all, as the chief storehouse of the standing energy reserve."⁶⁴

Juenger fundamentally made no reservations in claiming that modern technology was pernicious in its effects on human beings by outlining its inherent ability to influence our very nature as beings. Heidegger, too, was concerned with the dangers posed by modern

⁶³ Heidegger, *The Question Concerning*, 17.

⁶⁴ Heidegger, 21.

technology, however he felt that the danger lay not in the mere revealing he spoke of but rather what he referred to as a “destining” revealing. Heidegger suggests that enframing—the challenging revealing that compels man to harness and withhold natural resources into standing-reserve—is the essence of technology. “Since destining at any given time starts man on a way of revealing, man, thus under way, is continually approaching the brink of the possibility of pursuing and pushing forward nothing but what is revealed in ordering, and of deriving all his standards on this basis.”⁶⁵ On this account, we can imagine a logger looking upon the vast beauty of the forest and seeing not the trees but the timber into which they can be transformed. Under the holding sway of enframing, he is unable to determine any other possible way of revealing that the forest might undergo. The modes of revealing that are seed to sapling, sapling to towering giant, to symbiotic caretaker of humans and all other airbreathing creatures, to *lung of the earth* are not merely taken for granted, they are simply not seen. These modes are forever lost because the tree’s only value lies in the ways in which we may *use* it. “Yet when destining reins in the mode of Enframing, it is the supreme danger.”⁶⁶ The tree’s other possibilities are not neglected; they simply do not exist.

Though his views on modern technology are fundamentally dismal, Juenger closes his book with a seeming ray of light. Recall that his book in the German is entitled *Die Perfektion der Technik (The Perfection of Technology)*. Besides the Cartesian belief that all one can be certain of is one’s existence, there is another principal truism held by both philosophers and laymen alike, namely that in virtue of being human, we can never achieve perfection. We may think we can conceive of such a thing but nonetheless know deep down that any pursuit of such would end in futility. Juenger suggests that perfection is what modern technology drives at fundamentally and through its processes, achieves.

Recall that in the German tongue, perfection involves completion or fulfillment by means of flawless methodology and processes. That a machine can produce a product with absolute precision is impressive. What is more impressive however is that the machine can do this countless times in rapid succession providing a multitude of exactly similar products

⁶⁵ Heidegger, 26.

⁶⁶ Heidegger, 26.

without interruption. Achieving this level of perfection is absolutely impossible for a human alone. Just consider the computer that is likely sitting in front of you at this very moment. What human could produce all the various components that go into its construction without the machines that make them? Furthermore, what human could alone mass produce such a thing so “perfectly?”

What do we mean by saying that technology achieves perfection? What does the statement imply? Nothing else than that the thinking which produces and expands technology come to an end, that it reaches those limits which are set by its own methods. It means that a high degree of mechanical skill has been achieved, as can be observed in production methods, tools and products.⁶⁷

To illustrate this claim, imagine a hexagonal nut with a three-quarter inch outer diameter. It is a common piece of equipment found in just about any hardware store in the United States. It will always fit a seven-sixteenths thread size bolt the same way. Likewise, this goes for its metrically converted counterpart. The fit could be said to be, well, perfect. We might even call it a “perfect match.” But also integral to Juenger’s claim are the production methods themselves. They too must be perfect in their ability to produce complete qualitative sameness in their endless output. In this particular form of technological perfection, it is the machine’s process that achieves perfection. Thus we can observe the same level of achievement in the production of all mass produced technological objects from bicycles and automobiles to calculators and smartphones.

But for Juenger, what will always set mechanical processes apart from human ones essentially is the one property we have that machines can never possess, *maturity*. “Mechanisms may give the impression of the highest streamlined perfection, but this must not be confused with maturity.”⁶⁸ For Juenger, maturity is a property reserved exclusively to organic beings; it can neither be forced nor enforced by mechanical means. Maturity involves learning. It is a micro-evolutionary process by which we discover what produces positive results in one’s life and what does not. As children on the playground, we pester and insult the one we desire. In maturing, we come to the realization that this was an ineffective means to gain the affection of another. We thus amend our behavior to better establish our goal of

⁶⁷ Juenger, *The Failure of Technology*, 130.

⁶⁸ Juenger, 134.

reciprocal interest by complimenting and caring for those we pursue romantically. These very specific processes of learning, realization, and amendment are exclusive to humans. According to Juenger, machines do not possess these capabilities and therefore they do not originate from, nor can they be enforced by mechanical means.⁶⁹

As we are seeing in Juenger's analysis, a differential line is being drawn between humans and technology, but it cannot be ignored that we humans think technologically. The prevalence of technological thinking is seen in both what we create, and in the influence our creations have over us to further develop them.⁷⁰ As was argued by Juenger himself, the precision of technology is derived from the exactness of scientific measurement. But as precise as we may hope to be in our endeavors, we are still fundamentally human and, therefore, unable to achieve the perfection at which technology aims.

We use scientific reasoning to explain the *regularity* of natural phenomena, e.g. that an object in motion tends to stay in motion unless otherwise impeded. What we are attempting to explain are mechanical laws on which the universe operates whether we are here to observe them or not. But it must be remembered that the explanations of such laws originate from and are expressly limited to human creation.⁷¹ Furthermore, we assert that all natural phenomena can be explained within the framework of scientific reasoning and, therefore, grant *legitimacy* to our assertions. The precise scientific reasoning used to

⁶⁹ There is much research being done currently in the arena of what is called "machine learning" and the adaptive processes of many technologies are rapidly advancing. Of this Juenger could not have been aware. But I argue that though machines do seem to be learning and have the ability to adapt by self-updating processes, these processes are dictated exclusively by technological means that only serve to improve technological processes. Machine learning is not guided by human consciousness. I will grant that perhaps the machine itself, if suitably complex, could be an emulation of consciousness, but it is not *human* consciousness. The execution of any given technology's tasks does not take into consideration the thoughts and feelings of human beings and thus cannot be equated to human maturity.

⁷⁰ This notion of "technological thinking" will be covered in more detail in the following chapter.

⁷¹ Albert Einstein expressed this notion clearly in his famous address, "Geometry and Experience" given on January 27, 1921, at the Prussian Academy of Sciences in Berlin. He stated, "As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality." In other words, by using previously devised axioms in mathematical logic, words like 'point' and 'straight line' stand only for empty conceptual schemata. The entities of point and straight line presuppose only the validity of the axioms they denote, axioms that are free creations of the human mind. To read Einstein's address in full, see Albert Einstein, *Ideas and Opinions*, trans. Sonja Bargmann (New York: Crown Publishers, 1982), 233.

universalize such phenomena is employed to validate and inform technological growth and innovation.

The point Juenger is arguing is that we *are not* technology, and in purely human affairs, we are fundamentally imperfect. Therefore, scientific exactness—the perfection at which technology aims—can be seen as that which separates us most fundamentally from it. The second law of thermodynamics cannot explain why a flower blooms or a caterpillar metamorphizes into a butterfly. Scientific precision and technological perfection might even afford us with accurate explanations of purely human affairs. We could imagine a technology that pinpoints the precise bio-physical phenomena that explain why one might fall in love with a specific type of person, but on Juenger’s account, such explanations bring us no closer to the essence of such a decision; the hows do not equal the whys. He sees our fundamental inability to achieve perfection combined with our *exclusive* ability to mature as indicating an impenetrable line of demarcation between technology and human beings. It is by means of this fundamental distinction between man and machine that Juenger arrives at his final section, “The Downfall of the Mechanized State.”

In 1946, Juenger claimed that technology was “completely integrated with our present era,” that it had “created a new, rational organization of work.”⁷² I argue that currently, nearly three quarters of a century later, this remains the case. He maintained that technology “expands this organization by measure of that mechanical automatism that is the sign of growing perfection.”⁷³ He felt it was an altering and destructive force that advances forward and remains intact not in virtue of its retention of elements promising a new order but simply because it is the most efficient manner in which to destroy the preexisting order of things, “the leveling of pre-existing differentiations.”⁷⁴ However, as has been elucidated at length thus far, the principal mine from which technology extracts its resources is *nature* and all her precious resources. “Since all things mechanical harness elemental forces, we know for certain that in a state of perfected technology the human race will dispose of a maximum of

⁷² Juenger, *The Failure of Technology*, 191.

⁷³ Juenger, 192.

⁷⁴ Juenger, 192.

elemental powers.”⁷⁵ Juenger suggests the inevitability of our exhausting these resources to a degree that will require the discontinuation of such mining practices to maintain ecological balance and basic human survival. “In other words, the surplus of elemental power that man has obtained by his destructive exploitation of nature thereby turns against him and threatens to destroy him.”⁷⁶ Again, we are reminded of the similarities between Juenger’s “surplus of elemental powers” and Heidegger’s “standing-reserve.” But in this case, the former thinker actually takes an intuitive leap in applying the shared notion to provide a de facto prediction of its consequences.

Juenger prescribes the downfall of the mechanized state as well to what he claims will be a common dissatisfaction with technological society. Recall his previous notion of dead time and its role in the regulation of our processes and constriction of natural movement. Our working and living day after day in a repetitive, mundane manner constrained by synthetic temporality is what ultimately leads to mechanical, lifeless thinking. But seemingly, for Juenger, it is from this very lifelessness that hope may spawn. “Nowhere is death to be found without the connotation of life, since the one is meaningless and inconceivable without the other.”⁷⁷ Though fallible, human existence necessarily presupposes life. This disagreement between the imperfectness of human nature and the perfection at which technology aims “simultaneously organizes the resistance against its own compulsion.”⁷⁸ Here we might expect Juenger to spell out some revolutionary tactic taken by man against machine, some palpable act of resistance. Sadly though, none is given.

But there is something crucial to my own analysis which can be noticed in Juenger’s argument. We can here draw yet another correlation to the work done thereafter by Heidegger.

⁷⁵ Juenger, 192.

⁷⁶ Juenger, 192. A contemporary precursor to this may be our growing emphasis on “sustainable” business practices. These come in forms ranging from “paperless” document transmission to water and electric conservation tactics to the increasing development of recycling programs. Some may label these practices as “progressive” or even “hip” but the fact of the matter is that the implementation of these practices at both home and office come via necessity and are by no means simply a flight of fancy.

⁷⁷ Juenger, 193.

⁷⁸ Juenger, 193.

Heidegger does, however, provide something of a solution to the problem posed by modern technology. In the conclusion of QCT, he tells us that though enframing certainly presents us with an extreme danger, it is from this threat that salvation can originate. “*But where danger is, grows The [sic] saving power also.*”⁷⁹ We are reminded that Heidegger understands the verb “to save” to mean doubly “to fetch something home into its essence, in order to bring the essence for the first time into its genuine appearing.”⁸⁰ If the essence of technology is as Heidegger suggests, this enframing that challenges and demands the accumulation and storage of resources to be always at hand, we must also consider revealing in its *original* sense as that which alone is responsible for inspiring the very notion of enframing *primo loco*.

In something of an origin story, he provides us with two Greek ways of revealing that came long before any threat posed by modern technology. The first is *physis*, “the arising of something from out of itself.”⁸¹ Examples of such are the blossoming of a flower in spring or the emergence of a butterfly from her cocoon. The second way—closely related to *physis*—but of necessity facilitated by human touch is *poiēsis*, a bringing-forth that makes no challenge. It is a mediated arising for certain but one that demands nothing. Examples of such are fine art, poetry, and handicraft as produced by the artist or artisan. Though certainly similar in the respect that neither make any challenging demand, *physis* can be distinguished from *poiēsis* in that the former is an arising from out of itself whereas the latter is a bringing forth by human production. Though these may seem like different entities altogether, Heidegger felt that they were more so differing formulations of one another. “*Physis* is indeed *poiēsis* in the highest sense.”⁸² What is important to note is that both qualify as modes of revealing just as enframing does. Thus, the saving power can be seen as stemming from the same origin as the danger. As has been alluded to throughout the chapter, this argument in particular provides strong evidence that Heidegger’s analysis (though arguably more complex) could very well have been inspired by the former work of Juenger.

⁷⁹ Heidegger, *The Question Concerning*, 28.

⁸⁰ Heidegger, 28.

⁸¹ Heidegger, 10.

⁸² Heidegger, 10.

Heidegger continues by telling of what revealing meant to the ancient Greeks at a time when technology amounted to nothing more than the work of an unskilled laborer. This involved what was then known as *technē*, that bringing forth from which the word ‘technology’ was born. But early on in QCT, we are told that *technē* ultimately “belongs to bringing-forth, to *poiēsis*; it is something poietic.”⁸³ So, again, we see his claim come to light that both the danger of technology and the saving power reside in a shared origin. “Once there was a time when the bringing-forth of the true into the beautiful was called *technē*.”⁸⁴ He argues that during this time, *art* was referred to as *technē*. “[Art] was a single manifold revealing.”⁸⁵ “It was pious, *promos*, i.e., yielding to the holding sway and the safekeeping of truth.”⁸⁶ The underlying suggestion is that if we are compelled to un-conceal that which is concealed, if this is our nature, there is another way to do so which promotes beauty and lays no challenging claims. Our admiration for, and the inspiration begotten by the fine arts is a pure and inclusive way of revealing. It is a formal (and of necessity) anthropological instantiation of the previously mentioned *poiēsis*.

Poetry should be regarded here as fundamentally intertwined with the arts. Heidegger certainly felt this way in terms of the Greek’s admiration thereof. “It was finally that revealing which holds complete sway in all the fine arts, in poetry, and in everything poetical that obtained *poiēsis* as its proper name.”⁸⁷

Heidegger brings this about not to demand that everyone to ditch their iPhones and spend all their time in museums but rather that it is in the presence of art and under the influence of poetry that one can experience revealing in a way that manifests no peril. Concerning the poetical specifically, he reminds us that it “brings the true into the splendor of what Plato in the *Phaedrus* calls to *ekphanestaton*, that which shines forth most purely.”⁸⁸ “The poetical thoroughly pervades every art, every revealing of coming to presence into the

⁸³ Heidegger, 13.

⁸⁴ Heidegger, 34.

⁸⁵ Heidegger, 34.

⁸⁶ Heidegger, 34.

⁸⁷ Heidegger, 34.

⁸⁸ Heidegger, 34.

beautiful.”⁸⁹ He wants us to realize that art—as it is unitedly infused with the poetic—is a mode of revealing which requires not the hoarding and stocking that technology requires in the form of standing-reserve.

A great work of fine art reveals not only the work of art itself but also the intention of the artist, a slice of her soul, a way of experiencing the world through the lens of another’s perceptual field. It is a multi-layered revealing that is just as complicated and spectacular as a piece of modern technological equipment but makes not the same challenging demands. This instantiation of *poiēsis* allows, recognizes, and respects nature as a source of revealing whereas enframing demands, controls, and owns her.

Juenger’s conclusion contains a slightly paralleled optimism but is nowhere near as elegant. He posits that according to the technician, she who relies heavily on the use of technology, “the state can properly fulfill its tasks only when it becomes organized on a completely technical basis, when the idea of the state and its purpose are organized into a centralized functionalism, an all-embracing machine which nothing escapes.”⁹⁰ This *is* Juenger’s notion of the ‘would-be’ perfection of technology. However, he does not believe this a real possibility as the lifelessness of technological thinking will always be in direct conflict with the biological certainty of human life. The two cannot harmoniously exist. There is a certain something of which the state must be composed to be considered a state in the first place. That something for Juenger is its *people*: people who may be regulated by, contained within, and ultimately dependent upon technological thinking, but nonetheless lack the ability to *become* technology in and of themselves. We are left with his final words. “The technical organization of the whole people to the point where no sector of life remains unorganized, in the end brings the downfall of the state.”⁹¹

So the title of this final section, “The Downfall of the Mechanized State,” alludes not to what the reader may hope for. It is not a way out of the merciless oppression administered by modern technology that serves as an unbroken thread throughout Juenger’s analysis. We

⁸⁹ Heidegger, 34.

⁹⁰ Juenger, *The Failure of Technology*, 204.

⁹¹ Juenger, 204.

might think that humans in their inherent ability to mature would somehow overcome the tyranny imposed by modern technology. Perhaps this might come about due to the increased necessity to protect our diminishing natural resources or simply via our chief distinguishing characteristic of *having life*, but though these possibilities are alluded to, there is no offer of how they might save us. As mentioned by Juenger himself, the downfall of the mechanized state simply implies the downfall of the state, period.

Perhaps the downfall of the mechanized state does actually spell out the downfall of the state itself. For as I claim throughout this thesis, we simply could not survive the way we do without modern technology. But I argue steadfastly that though modern technology is what propels us forward as a society, it is also what harnesses us and deprives our having of true autonomy. This forgone autonomy—as it is willingly handed over to modern technology—is the central focus of the next chapter.

CHAPTER 3

GENUINE AUTONOMY

The cleverest ruse of the Devil is to persuade you he does not exist!

-Charles Baudelaire

“The Generous Gambler,” *La Figaro*

In the preceding chapter, much work was done to explicate what the essence of technology might be according to Juenger and Heidegger. Though still lacking precise definition, the word ‘technology’ does stand for something, something to which an essence can be attributed. Heidegger claimed this essence to be *enframing*, a challenging mode of revealing that compels man to harness and withhold natural resources into standing-reserve.⁹² It is shot through with the compulsion to have always at hand that which technology promises, namely, an endless supply and storehouse of technological advancement derived from natural resources, for it is not enough to simply *have* a computer or smartphone. The value of these devices rests in what they provide and the means by which they do so, the provision being access to a seemingly endless supply of information and entertainment through the most streamlined and updated processes and the means being simply the battery that powers these devices and the ability to charge it.

Recall the last time you found yourself in an airport terminal. While patiently waiting to board your flight, you observe a wide variety of persons from the occasional student passenger to the businessman who has made air travel a regular part of his life. What these wildly differing instantiations of humanity have in common is their shared desire to retain and interact with the devices of their preference. Both share the avid compulsion to interact with their devices, to have that which they desire at their fingertips. Whether that desire

⁹² Heidegger, *The Question Concerning*, 25-26.

amount to the completion of a Power Point presentation or the mindless scrolling through one's Facebook feed, both require the ability to continue their tasks by keeping their respective devices charged. In an outward display of this necessity, we might find both student clad in jeans and a tee shirt and professional in a three piece suit sitting together on the terminal floor sharing a service outlet originally meant to be a convenient source of power for the janitor's vacuum. Both the screened devices and the industrial cleaning machine require a standing-reserve of energy to be provided in assurance that these functional contrivances always have the ability to provide that which is expected of them, which as it turns out, is in and of itself a standing-reserve.

Juenger argued that the essence of technology lies in its pursuit and achievement of "perfection." Perfection in this sense amounts to a completion and fulfillment of the highest degree of mechanical skill. The achievement of such a perfection occurs when technological thinking comes to an end, "that it reaches those limits which are set by its own methods."⁹³ Fundamentally involved in the perfection of technology is its ability to do for us what we lack the ability to do on our own, for as has been alluded to since the onset of philosophical thought, perfection—though conceptually conceivable—is not a human attribute.

There is no question that I retain the ability to make a cup of coffee in the morning if even by the most rudimentary methods of pouring heated water through a cone filter containing ground coffee beans into a cup. But none of this would be possible without the various technologies involved with these processes, for without the filter, the cup, the heated water, and the means by which the beans are roasted, packaged, and ground, the process would be unattainable. The culmination of these processes as guided by technological thinking would not be possible according to Juenger without technology's achievement of perfection in the processes themselves. To take it a step further, consider the sheer volume of output provided by the technologies found at your local coffee shop.

Essential nature aside, the point I want the reader to recognize is that technology *does* something. Though it allows, permits, and affords, it also controls. Labeling 'technology' as simply a *neutral* entity would be a mistake and will only lead to the misconception that there

⁹³ Juenger, *The Failure of Technology*, 130.

is no need for concern. It leads most importantly to the mistaken belief that *we are in control*. We, in fact, hold our ability to master technology in the highest regard. In this sense, we want to have our cake and eat it too. We outrightly demand of technology that it provide unlimited potential for its own advancement, and we do so while omitting concern for the consequences involved with such a demand. We aim to harness that which we—at the same time—require to be an unbridled potentiality. As Heidegger puts it:

Everything depends on our manipulating technology in the proper manner as a means. We will, as we say, “get” technology “spiritually in hand.” We will master it. The will to mastery becomes all the more urgent the more technology threatens to slip from human control.⁹⁴

But how on earth could something over which we have ultimate authority “slip from” our control as is suggested here? How could something that, in virtue of being created, have any control over its creator? For this to be possible, that which is created must have, at least to some degree, *autonomy*. It will be the central focus of this chapter to explain how this has come to be the state of affairs in which we find ourselves today. But before any arguments can be made for its autonomy, I must first pay a debt owed to the reader by offering what I believe to be a viable definition of ‘technology’, one that we may employ with confidence in making such arguments in the first place.

In Chapter 1, I stated that ‘technology’ should be considered as being those powers and forces that explain the functions and activities of inorganic contrivances.⁹⁵ Perhaps better stated, it is the driving force behind any technological apparatus from the stone wheel of the ancients to the most advanced supercomputer of today. But recall that technology is more than just the devices that bear its description. There too exists *technological thinking*. This is the type of thinking from which technology spawned forth in the first place. But at the same time, it is a thinking driven to advancement by the implementation and regular use of a myriad various technologies. I will leave the chicken and egg debate on this matter to my objectors. More crucial to the analysis at hand will be a discovery of exactly what these

⁹⁴ Heidegger, *The Question Concerning*, 5.

⁹⁵ Here, I make explicit “inorganic” because there do exist what could be considered contrivances of an organic nature. Examples of such are the use of cats to hunt household pests and dogs to herd sheep. Also consider the many uses humans have found of livestock animals.

driving powers and forces are and an intelligible understanding of how we experience them. To my own—and quite possibly the reader’s dissatisfaction—I must concede that though inherently present in technological thinking and the contrivances that result from it, these powers and forces remain *unseen* in a noumenal sense, for we have not the ability to experience them in and of themselves. They can only be understood via their *expression* in functional devices and the technological thinking that drives their advancement. It is only by understanding this that we become able to experience what technology truly is. To further clarify my line of reasoning, let us consider by law of opposites what technology is not.

Just as I have suggested that technology is the driving force behind all that is technological, we could reasonably characterize that which we call *life* to be the driving force behind all things organic. I have in mind here plants, animals, human beings, bacteria, and anything else we could rightly designate as being alive. Just as the driving force behind technological thinking and the subsequent manifestation of functional contrivances from which they spawn, life, too, goes unexperienced in and of itself, for life can only be understood by the experience of that which is alive, or if you prefer, that which *expresses* life. In much the same way we would accurately describe a creature with four legs, a wet nose, and a vigorously wagging tail who barks when you pull into your driveway as a dog (but still recognize as a life), we could accurately describe the device with four wheels, a transmission, and a motor that you pulled into the driveway as a car (but still understand it to be a technology). Put plainly, when using the word ‘technology’, I will mean those unseen powers and forces that both inherently explain the functions and drive forth the advancement of all inorganic contrivances and the thinking from which their creation and continued integration stems.

What is left out of this picture? Perhaps stones, minerals, and elemental substances such as gold and uranium? We might think the inanimate objects in this list would not fall under the scope of technological and certainly not under the scope of those entities we would label organic, but consider the fact that these inorganic materials are most certainly seen by technological thinking to be resources we can use to create something in a technological manner. They are all in fact the objects of desire requisite for the instantiation of Heidegger’s standing-reserve.

It should be mentioned that though my analysis is primarily concerned with *modern* technology, the arguments made in this chapter will, for the most part, involve technology in general. Modern technology differs from what I will refer to as *antiquated* technology. Within the scope of this antiquated variety should be considered those technologies that complete beneficial tasks but rely heavily upon the exertion of energy by their users. The distinguishing factor between modern and traditional, or antiquated, technology is *automation*. Equipment that completes tasks automatically is often regarded as “doing the work for us.” Consider the electric pencil sharpener. Opposed to that archaic wall mounted, hand-cranked unit many of us used in grade school, the automatic version merely requires inserting the pencil into the device and waiting a few moments as it quickly and efficiently provides a sharp point well suited for writing. Other examples of automation appear in equipment used on mechanical assembly lines, electric toasters, and heat-seeking Sidewinder missiles. The list of automated technological devices is seemingly endless, and automation is the key feature of those technologies that may be considered modern.

So there you have the preliminaries. Let us now take a deeper dive into what autonomy means. From the Greek, *autonomos*, we can gain just about all we need in terms of definition. *Autos* should be understood simply as ‘self’, and the second part of the word, *nomos*, should be understood as ‘law’. The addition of these two constituent parts come to mean one who lives by her own law. Therefore, I will say that the having of autonomy implies the ability to *self-govern*. Self-governance requires control of one’s actions and, more importantly, the ability to exist devoid of coercion. I use the word ‘coercion’ as opposed to ‘influence’ because the former implies a threat to autonomy that comes by force. Though there is always the possibility of such a threat to one’s autonomy as perpetrated by another agent, it is also possible to exist in a manner that is free of such an impediment. Regarding the notion of *influence*, it should be noticed right away though that short of God (if there is such a thing) or the universe as a whole, nothing exists completely free of an uncountable spectrum of influential factors. I can spend a day on the beach free of the threat of coercion quite easily, but in doing so, I am not free of the possibility of getting a sunburn or the wind blowing in my hair.

This leads to another implication involved with autonomy. Autonomy comes with a certain sense of freedom. Those with autonomy have the ability to exist independently of

another's control. I will consider those with such abilities as *free agents*. This notion of agency is sometimes conflated with autonomy, but I would like to be very clear in the definitions I am using. One with agency—in my use—simply means a thing or person that acts to produce a certain result, the doer of an action or actions, so an agent is nothing more than an entity completing tasks. That is why it takes the tacit addition of 'free' to 'agent' to understand such an entity as having autonomy to complete such tasks independently of others' control and therefore by her own self-governance.

Finally, notice that agency is not restricted only to persons or any other organic being. In the same way a specialist in a given field of study could be understood as an agency in the carving out of its advancement, so too could, say, the media⁹⁶ be seen as an agency in its projection of the state of affairs in a given nation. We could also consider the music of a generation as being an agency that shapes the thought of persons belonging to that generation. With these considerations of agency in hand, we can now return to our exploration of the concept of autonomy. To do so, it will be instructive to visit what other contemporary thinkers have said on the matter.

In *Fellow Creatures: Our Obligations to the Other Animals*, the moral philosopher, Christine Korsgaard, imparts a Kantian theoretical framework of autonomy and how we can use such a framework to gain a deeper understanding of what our obligations to non-human animals might be. Integral to her analysis is a distinction that can be drawn between the patterns of thought and behavior of humans and non-human animals. To demonstrate this variance, she gives an example of how both species might behave upon seeing a lion approaching their vicinity. Both a human and a zebra might react in a similar way (say by ducking into tall grass to avoid detection). According to Korsgaard, the human has *reasons* for doing so whereas the zebra's reaction is guided exclusively by her *instinct*. Though certainly informed by instinct, the man's decision stems from the making of a rational judgment. Korsgaard also claims that humans are influenced by instinct in much the same way that non-human animals are, and though this shared attribute is certainly a deciding

⁹⁶ Though it is grammatically correct to regard the word 'media' as it appears in the word 'social-media' as plural, I will refer to social media as a single entity. This will be done intentionally as I am considering all social media platforms collectively as being *a form* of technology.

factor, it is not the *only* deciding factor for humans. The man's decision to duck behind the grass is ultimately made via rational foresight of consequences, something Korsgaard argues that non-human animals lack. "[T]he other animals are governed by the laws given by their instincts, while we rational beings are governed by laws we give to ourselves."⁹⁷ From this claim, we should notice right away that if we are to accept the self-governing definition of autonomy I have laid out, Korsgaard argues that humans have autonomy via reason and denies that non-human animals are autonomous due to their ostensive lack of reason.⁹⁸ "This is the property that Kant called 'autonomy,' being governed by laws we give to ourselves."⁹⁹

Korsgaard then argues that having reason is a necessary condition for having autonomy and being human is requisite for having reason. She does, however, bring up a caveat concerning influence that more or less parallels my thoughts on the notion. "Rationality is liberation from the control, although not the influence, of instinct."¹⁰⁰ It is this statement that will be most instructive to my project. From Korsgaard's argument, we can derive three central claims regarding autonomy:

1. To have autonomy, one must have reason.
2. Autonomy, as granted by reason, also grants freedom from the control of instinct.
3. Though our autonomy grants us freedom from the control of instinct, we are not free of its *influence*.

Using Korsgaard's claims, I put forth my own example so we may better understand their implications. Let's say you are crossing the street and notice a fast moving bus that will surely run you down unless you pick up the pace and move from its path. As a rational human being, you are autonomous and therefore able to make a decision based on rational judgment(s) (1). By implication, (2) tells us that though still endowed with instinct (perhaps

⁹⁷ Christine M. Korsgaard, *Fellow Creatures: Our Obligations to the Other Animals* (New York: Oxford University Press, 2018), 43.

⁹⁸ I realize that this distinction is by its very nature controversial. Some may argue that non-human animals do have reason. The argument could also be made that we cannot make any claims whether they are rational beings due to our lack of epistemic access to the motivations they have for doing what they do. On this, I certainly have my own thoughts but care not to express them here. I only ask that the reader acknowledge that what is being said in this section should only be meant to apply to that which is expressed by Korsgaard and in no way reflects my opinions on the matter.

⁹⁹ Korsgaard, *Fellow Creatures*, 43.

¹⁰⁰ Korsgaard, 43.

in virtue of being a human *animal*), it, alongside the property of having reason, can serve as instructive in deciding whether to save yourself from the impact of the bus. Since you have not only instinct at your disposal but reason as well, you are afforded the ability to make a choice whether to move from the bus's path because though free from the control of instinct, you are not free of its influence (3). It is, therefore, possible for you to choose (against the influence of instinct) not to move from the bus's perceived trajectory.

This third point may seem trivial. You might even say that you would surely do whatever it took to avoid the speeding bus *without a thought* or as if *by instinct*. For that is exactly why we might say a raccoon would take the same course of action. But I argue (3) is integral to the distinction drawn by Korsgaard between human and non-human animals. By her logic, when confronted with this decision, the raccoon avoids being hit by the bus because the raccoon has only a non-rational instinct to operate from. There is seemingly no other way it could play out. We could even say that the raccoon is controlled by her instinct to take such a course of action and any other possibility would be out of the question. But for us it is somehow different; we have a decision to make. Being free of the control of instinct, we could react in a number of ways. For instance, we could immediately dash for the safety of the sidewalk, we could continue our current pace purely out of indifference, or we could even decide to stop in our tracks thus welcoming the surely fatal impact. *This* is the truest instantiation of autonomy, the ability to sharply reject perhaps our strongest instinct of survival because though we are not free of its influence, we are free of its control.

Does this make us better off than non-human animals? Does the retention of reason place us at a higher level of ontological importance? For greater insight, I refer the reader to arguments made by Korsgaard herself. These questions are not for me to answer. For our purposes, though, I feel the narrow focus on her adaptation of Kant's notion of autonomy will prove most instructive. As you may already be thinking from what I have put forth thus far, my conclusion will most certainly involve a rejection of the Kantian formulation. But more on that to come soon enough.

At this point, we should have a greater understanding of what autonomy is and what it means to have it. But as the concept is not yet fully developed, let us take a moment to explore what it looks like to have one's autonomy taken away. Doing so will, I argue, bring us closer to seeing what it might look like for technology to be autonomous.

It should come as no surprise that those persons indigenous to what is now known as the United States of America have suffered tremendous losses of life and land. I have no qualms, and am whole-heartedly in accord with, the argument made by many scholars that the means by which this country was established came as the result of its wrongful appropriation from Native Americans.

With a primary focus on the Crow people, social philosopher, Jonathan Lear, explains precisely what it looks like to have autonomy as both myself and Korsgaard have been describing it conceptually. More specifically, he explains the means by which it can be stripped of both individual and culture. For the Crow, autonomy amounted to a *happening*, a way of life that included the practices of hunting, war rituals performed in conflict with other tribes, and the preparation for such meaningful activities. The forcing of Native Americans onto reservations by white settlers resulted in the loss of their ability to conduct such activities and, hence, the loss of the Crow people's long established way of life. The Crow chief, Plenty Coups felt that the eradication of the buffalo from his native land was the phenomenon that marked this crucial turning point and subsequent loss of happening. Lear shares Plenty Coups's thoughts in an excerpt from Frank B. Linderman's *Plenty Coups: Chief of the Crows*:

Plenty Coups refused to speak of his life after the passing of the buffalo, so that his story seems to have been broken off, leaving many years unaccounted for. "I have not told you half of what happened when I was young," he said, when urged to go on. "I can think back and tell you much more of war and horse-stealing. But when the buffalo went away the hearts of my people fell to the ground, and they could not lift them up again. After this nothing happened."¹⁰¹

By saying "nothing happened," Plenty Coups points to a loss of happening, of a way of life, and as I will argue, the loss of autonomy.

Vital to one's identification as a Crow was the practice of "counting coups," where 'coup' meant 'blow', the counting of coups amounted to the recollection of brave acts that took place in battle with neighboring tribes.¹⁰² These metaphysical badges of honor were

¹⁰¹ Plenty Coups quoted in Frank B. Linderman, *Plenty Coups: Chief of the Crows* (Lincoln: University of Nebraska Press, 1962), vii; quoted in Jonathan Lear, *Radical Hope: Ethics in the Face of Cultural Devastation* (Cambridge: Harvard University Press, 2008), 2.

¹⁰² Lear, *Radical Hope*, 15.

often gained through the use of “coup-sticks.” These traditional, feather-clad sticks were planted into the ground to mark lines of demarcation, or territorial boundaries, separating Crow land from that of neighboring tribes. This gesture implied that crossing the line designated by a coup-stick would result in death for any non-Crow person. “The planting of a coup-stick was symbolic of the planting of a tree that could not be felled.”¹⁰³ The boundaries indicated by the planting of coup-sticks were, for the Crow, impenetrable. One could, of course, risk crossing this line, but to do so would mean one of two things: the death of the intruder or the fighting to the death by a Crow warrior as he defended the line that marked his land. Lear points out that what the Crow warrior is declaring by defending his territory is that “it is better for me to die (in a glorious battle) than for the Crow tribe to be threatened by penetration of the boundary at this point.”¹⁰⁴

Recall the earlier formulation of ‘autonomy’ as inspired by Korsgaard. In the example of the speeding bus, we discovered that though influenced by the instinct to move from its path, reason grants us the ability to decide whether to do so. In this split-second decision-making process that is both informed by reason and influenced by instinct, we have the ability to make a choice. As rational free agents, we get the final say whether we live or die. It is this, I argued, that could serve as the greatest instantiation of autonomy we could hope for. Prior to the invasion of white settlers and their subsequent imprisonment on reservations, the Crow people had this deep level of autonomy and retained the ability to express it at their will.

For the Crow people, to die in battle was a fate vastly more honorable than the one ultimately dealt them. In the mid-19th century, the Crow fought alongside the U.S. against the Sioux Indians, yet laws were eventually passed making inter-tribal battle between native tribes illegal. From 1882-1884, with their original land deal slashed to roughly 6% of what was originally promised 30 years earlier, the Crow were forced to move onto reservations with what remained of their people.¹⁰⁵ The traditional practices of the Crow people were

¹⁰³ Lear, 13.

¹⁰⁴ Lear, 14.

¹⁰⁵ Lear, 26-27.

thereby stripped from them entirely. The carrying of a coup-stick in the first place symbolized willingness to die to protect their land and way of life.¹⁰⁶ The planting of coup-sticks and counting of coups were occurrences that characterized the essence of being for Crow Indians. “Fighting battles, defending one’s territory, preparing to go to war—all of this permeated the Crow way of life.”¹⁰⁷ Therefore, when forced onto reservations, they no longer had territory to demarcate or defend, and the planting of a coup-stick had no meaning. To do so would essentially be to do nothing.

Plenty Coups’s insistence that after this point “nothing happened” symbolized the loss of autonomy for both himself and his people. They were no longer free agents able to participate in the activities they felt defined them as a culture. By saying that nothing happened, we might even understand him as implying that incurring such a loss meant the loss of agency altogether. If having agency involves being the doer of an action or actions, then the belief that after a certain point nothing happened implies the evaporation of agency altogether.

The loss of Plenty Coups and his peoples’ came as a result of its being taken. Having something taken presupposes a taker, a rational agent with foresight and the ability to do so.¹⁰⁸ In this case, the taker came in the form of oppressive white settlers who—in virtue of being autonomous themselves—were able to seize the autonomy of the Crow people by formidable and overpowering force.

Earlier in the chapter, I gave my definition of ‘technology’ as being those unseen powers and forces that both inherently explain the functions and drive forth the advancement of all inorganic contrivances and the thinking from which their creation and continued integration stems. I mentioned that these powers and forces are not seen in and of themselves but rather can only be seen via their expression in the technological. Notice that the force responsible for the wrongful appropriation of Crow land and the compartmentalization of the

¹⁰⁶ Lear, 22.

¹⁰⁷ Lear, 11.

¹⁰⁸ One could surely object by pointing out that people could refer to something without agency like cancer as “taking one’s life,” or perhaps that one “lost her job to a failing economy.” Do we really mean that somehow cancer or an economy made the conscious decision to take one’s life or livelihood? I wager most would answer no.

Crow people into vastly smaller fractions thereof was also not seen or experienced in any direct manner. It was only expressed through the actions of autonomous actors. With this, we seem to have no conceptual problem. Though morally reprehensible, we can easily understand the mechanics of injustice because those responsible for the atrocities can be seen as autonomous beings expressing their will. But what of technology? How can we see it in the same light? It will be from this point on that I execute my arguments for such a possibility.

Before arriving at my own conclusion, we must turn to one final contribution. French philosopher and sociologist, Jacques Ellul, made it his life's work to formulate a highly comprehensive critique of technology. Though a staunch opponent of technology and the effects it has on society, the analyses given by this author are among the most widely cited and highly regarded by contemporary academics in the field of philosophy of technology. He regarded technology as an "organism" that "maps its own route." He claimed that "Autonomy is the very condition of technological development."¹⁰⁹

Through the work of the previous two authors, we have looked at autonomy through an ethical lens. Korsgaard used a Kantian formulation of autonomy to inform her arguments on what we might consider to be our obligations to non-human animals. Lear explored what it meant for the Crow people to lose their autonomy by means of subjugation and the total loss of cultural existence. Accordingly—in regard to values and ethics—Ellul offers five aspects of technology that he feels indicate its autonomy. It should be recognized that this particular brand of autonomy comes in the form of the independence technology has from ethical considerations of any kind.¹¹⁰

We would like to dwell on a further aspect of that autonomy from values and ethics. Man in his hubris—above all intellectual—still believes that his mind controls technology, that he can impose any value, any meaning upon it. And the philosophers are in the forefront of this vanity. It is quite remarkable to note that the finest philosophies on the importance of technology, even the materialist

¹⁰⁹ Jacques Ellul, *The Technological System*, trans. Joachim Neugroschel (Eugene, OR: Wipf and Stock, 1980), 125.

¹¹⁰ Ellul does make a case for the technology's autonomy from the state and politics as well (see Ellul, *The Technological System*, 130-145), but as we have looked at ethical considerations thus far, I felt it fitting to continue on this line of reasoning.

philosophies, fall back upon a preeminence of man. But this grand pretension is purely ideological. What is the autonomy of technology all about in regard to values and morals? One can, I feel, analyze five aspects.¹¹¹

The first aspect will serve as the foundation for each of the subsequent ones put forth by Ellul. “[T]echnology does not progress in terms of a moral ideal, it does not seek to realize values, it does not aim at a virtue or a Good.”¹¹² He claims that in terms of it progression, technology does not aim at any virtue or good. There is no part of technology that seeks to realize values. By progression, Ellul means the manner by which technology develops, expands, and advances. So if not toward any moral ideal, we might then ask toward what it progresses and for what reasons.

In his chapter entitled “Causal Progression and the Absence of Finality,” he explains that all technology progresses *experimentally*, “by trial and error, with adjustments, and confrontations of experiments.”¹¹³ Each technology must achieve success and thus provide the foundation for future practice. “[Technology] is a *progressive* procedure, always moving toward diversification and growing complexification, corresponding, of course, to an expectation, but with no real break or brutal innovation.”¹¹⁴

To explain this claim, let us turn again to the humble pencil sharpener. The automatic, electrically powered version came about causally due to the success—or “perfection” in Juenger’s language—of its antiquated, hand-cranked predecessor. In other words, the success of the antiquated legitimizes and thereby prompts progression into the modern. We can see the same causality in the progression from that which first took flight at Kitty Hawk to today’s most modern jet airliner. Though this is part of what Ellul means by “causal progression,” we will soon see that such a progression does not relate solely to individual devices; it is complex and systematic. Nonetheless, if we are to follow this line of thinking in terms of progression, neither morality nor virtue are considered in the slightest. Whether it be causal or not, I argue that technology progresses primarily for the purpose of *its own*

¹¹¹ Ellul, *The Technological System*, 145.

¹¹² Ellul, 145.

¹¹³ Ellul, 276.

¹¹⁴ Ellul, 276.

advancement and due to the permanent affixation of technological blinders that keep this fundamental purpose always in the forefront, any ethical or moral considerations will remain always in the unseen periphery.

This brings us to the second aspect of analysis. “[T]echnology does not endure any moral judgement.”¹¹⁵ Its developers and practitioners (“technicians” as termed by Ellul) do not “tolerate any insertion of morality” into their work.¹¹⁶ It is insisted that the work of the technician must be “free.” Ahead of the work of the technician is considered the work of the researcher (the scientist who conducts the research that informs the work of the technician). Ellul claims that the “great illogic of many intellectuals” is the ill-conceived notion that though the researcher can (and should) conduct her work devoid of considerations of good and bad—of that which is moral—the technician should, in applying such research, “use his technology for good.”¹¹⁷ Consider how much morality is involved in the development—as informed by scientific research—of computer guided ballistic missile systems, attack drones, and nuclear power plants.

But to play the angel’s advocate, let us posit that moral considerations should be made in the application of various technologies. We humans have the capacity for pain; technology does not. As motivated by such a capacity and a possible obligation to decrease suffering, we institute—by technological means—various ways to relieve pain and suffering. Let us use the example of chemo-therapy and its ability to eradicate cancer in the human body. On Ellul’s account, the scientific research involved with the invention of such a technology involves no moral reasoning. The objectivity involved in such research is what determines its success in application.

Consider now how morality might somehow make its way into the *application* of chemo-therapy. Though having never undergone such therapy myself, I am told by those close to me who have that it is a painful and unpleasant process. They consider chemo-therapy to be the lesser of two evils. I have been told by others with cancer that this pain and

¹¹⁵ Ellul, 145.

¹¹⁶ Ellul, 145.

¹¹⁷ Ellul, 145-146.

unpleasantness is enough to deny the undergoing of chemo-therapy as informed by the same consideration. From the standpoint of technology, chemo-therapy's ability to eradicate cancer in the human body is merely a byproduct. Both the research involved in its development and the methods of technical application therefore endure no moral judgment. I would add that the *need* for chemo-therapy in the first place can be traced to the use of the technologies from which the disease manifested in the first place.¹¹⁸

The third aspect involves the unwavering persistence of technological progression. “[Technology] does not tolerate being halted for a moral reason.”¹¹⁹ To substantiate this claim, Ellul points out, as Nagel did,¹²⁰ that morality is *relative*. “How can we cite a variable, fleeting, constantly redefinable good in order to forbid the technician anything or stop a technological advance?”¹²¹ Here, operating via qualitative evaluation, Ellul is simply stating that there is no way something that is, by its very nature, objective (technology) can be halted by something that is inherently relative (morality).

I do not find this to be his best argument, but by looking at the historical facts, we can see that our society does progress in a technological fashion, and to date, we have not ceased such progress for any moral reason. For the sake of argument, though, let us consider the possibility of a technological project being halted for any reason. We might consider some pause in a specific technology's progress that comes as a result of lack of public interest, resources, or funding. But keep in mind that throughout the suspension of progress, the technician will still be thinking and planning. She will remain at the drawing board. The moment she is able to return to her project, there is no doubt she will employ all that was considered during the pause to rapidly make up for lost time. And if the thinking employed by the technician during the time of interlude remains technological, as Ellul suggests, morality will not enter the process of application when the project is resumed.

¹¹⁸ For more on this, see A. Rosalie David and Michael R. Zimmerman, “Cancer: An Old Disease, a New Disease or Something in between?” *Nature Reviews Cancer* 10 (September 2010), <https://www.nature.com/articles/nrc2914>.

¹¹⁹ Ellul, *The Technological System*, 147.

¹²⁰ Thomas Nagel, *What Does It All Mean?* (New York: Oxford University Press, 1987). See specifically his chapter entitled “Right and Wrong.”

¹²¹ Ellul, *The Technological System*, 148.

Ellul's fourth aspect of autonomy brings us to a discussion concerning *legitimacy*. "Modern man takes for granted that anything scientific is legitimate, and, in consequence, anything technological."¹²² Arguably, the majority of society tends to deem what modern science asserts as legitimate. Ellul claims that the legitimacy of science is what grants legitimacy to technology. "The instant something is technological, it is legitimate, and any challenge is suspect."¹²³ He also points out that we can see a coexistent inversion of the claim, namely that of technology as being that which drives scientific progress. "It is technology that now validates scientific research."¹²⁴ Looking back at the first three aspects, we might have seen this coming. The first aspect claims that the progress of technology is experimental. The second aspect explicitly names scientific research as that which informs technological application. The third, though more subtly, implies the emphasis that science puts on objectivity. Ellul claims that it would be uncharacteristic of science to consider something with the capacity to be seen differently by different perspectives such as morality as something that could halt technological progress. So though the first aspect sets the pace for his argument that technology exists independently of morality—and is therefore autonomous—it is in fact the fourth aspect that brings about the common thread that binds them all.

This brings us to the fifth and final aspect of technology that Ellul claims denotes its autonomy. "Independent of morals and judgements, legitimate in itself, technology is becoming the creative force of new values, of a new ethics."¹²⁵ Thus far, we have been given reasons to believe that technology remains independent of, and therefore impenetrable by, the influence of morality. Ellul does, however, make the following concession: "Man cannot do without morality!"¹²⁶ In this statement, he argues that even though technology makes traditional notions of morality insignificant, we still require some *version* thereof.

¹²² Ellul, 148.

¹²³ Ellul, 148.

¹²⁴ Ellul, 148.

¹²⁵ Ellul, 149.

¹²⁶ Ellul, 149.

Technology has destroyed all previous scales of value; it impugns the judgements coming from outside. After all, it wrecks their foundations. But being thus self-justified, it quite normally becomes justifying. What was done in the name of science was just; and now the same holds true for what is done in the name of technology. It attributes justice to human action, and man is thus spontaneously led to construct an ethics on the basis of, and in terms of, technology.¹²⁷

So where we might think that technology simply keeps morality out of the picture, it is actually doing much more. It is not, in fact, the case, on Ellul's account, that technology makes traditional morality—which can be seen simply as competing notions of the good—insignificant. Nor does technology eradicate the instantiation of morality in the lives of human beings. What technology *does* involve is the making of such a morality outdated, or perhaps more appropriately, *obsolete*, and in so doing, it evolves the traditional into the modern. This is the same process by which traditional technologies become modern ones. It is a process of *evolution*.

This does not occur in a theoretical or systematic manner. The elaboration only comes afterwards. The technological ethics is constructed bit by bit, concretely. Technology demands a certain number of virtues from man (precision, exactness, seriousness, a realistic attitude, and, over everything else, the virtue of work) and a certain outlook on life (modesty, devotion, cooperation). Technology permits very clear value judgements (what is serious and what is not, what is effective, efficient, useful, etc.). This ethics is built up on these concrete givens; for it is primarily an experienced ethics of the behavior required for the technological system to function well. It thereby has the vast superiority over the other moralities of being truly experienced. Furthermore, it involves obvious and ineluctable sanctions (for it is the functioning of the technological system that reveals them). And this morality therefore imposes them almost self-evidently before crystallizing as a clear doctrine located far beyond the simplistic utilitarianisms of the nineteenth century.¹²⁸

This, I consider, to be the apex of Ellul's argument for the autonomy of technology. It reveals an infestation of technological thinking in the minds of human beings. It expresses that which results from the influence and subsequent implementation of technological processes that are without a doubt pervasive in nearly every culture and society.

¹²⁷ Ellul, 149.

¹²⁸ Ellul, 149-150.

It may be objected that there are still notions of morality or value that exist devoid of technological influence, for example, *beauty*. Well, in human form, consider the vast array of means by which beauty is achieved. Hairstyles, makeup, clothing, even the humble bar of soap—these are all technological. But what, you ask, of the sunset or of a flower? These are genuine instances of *natural beauty* and impart nothing technological in their being. Perhaps this is true. But consider the ways in which you *judge* such forms of beauty: the sunset by its clarity and precision, the flower by its *perfect* symmetry. Even the geometric shapes formed by any instantiation of so-called natural beauty are informed without relent by technological thinking. Such thinking is, in a word, unavoidable.

Walk about naked paying no mind to traffic signals as you cross the street. Gather food by foraging for fruits and vegetables that grow in the wild or by hunting with your bare hands. Somehow forget all the technical training you have received since your emergence from the womb. Only then will you be able to say that you exist devoid of technology's autonomy-limiting influence.

Though certainly deemed autonomous, Ellul did not consider any form of technology to be a stand-alone entity. He argued that technology exists as a *system*. As such, it is “formed by the existence of the technological phenomenon and by technological advance.”¹²⁹ For Ellul, the “technological phenomenon is the main preoccupation of our time: in every field men seek to find the most efficient method.”¹³⁰ It can certainly be argued that humans are always looking for faster, more efficient means to the ends they desire, but my argument is that the pursuit of those means always comes at a cost of their own autonomy.

To better understand this phenomenon and how it relates fundamentally to the concept of autonomy in our current sphere, consider the prevalence of online dating. Not long ago, it was commonplace to see an attractive stranger, say, in the supermarket and strike up a conversation. One might do so casually in the hope of making an initial romantic connection. Though slightly awkward, this interaction could result in either mutual attraction or flat out rejection. Either way, both parties know where they stand and, in the end, their

¹²⁹ Ellul, 79.

¹³⁰ Jacques Ellul, *The Technological Society*, trans. John Wilkinson (New York: Vintage Books, 1964), 21.

autonomy remains largely intact. Now, however, using a mobile dating app to swipe through a seemingly endless barrage of strangers in search of the same connection becomes the “most efficient method.” In fact, many feel this method is *safer* than the previous one because the user of a dating app is able to gain an understanding of the many people she meets online before committing to meet in person. This instantiation of Ellul’s technological phenomenon clearly demonstrates the abandonment of a previously accepted practice for the adoption of a newer, more efficient one. Not only has our method of discovery transformed considerably, the concept of dating itself has been *updated*.

Now consider the implications of this particular “innovation” in regard to autonomy. Many dating apps divulge the user’s location in her profile as it is the primary means by which persons are matched. Whether at work, home, or elsewhere, your location becomes a matter of public knowledge. This sensitive data combined with access to photos of the user, her name, and whatever other self-identifying characteristics she deems appropriate to provide are “out there.” I argue that a vastly more robust quantity and quality of personal information becomes available to a much wider array of people than could have ever been possible while picking out summer squash at the grocery store. It is not much of a stretch to see how providing details such as these to anyone who happens upon her profile could result in dangerous consequences for the user of such a technology.

Though its manifestation be subtle—perhaps even unrecognizable—what we are really seeing here is the occurrence of an increase in the autonomous capabilities of modern technology while those same capabilities once retained by the user of said technology are diminished. This *disproportionate reciprocity* that both stems from and guarantees our dependence upon modern technology operates as its most pernicious consequence. As I have been driving at from the start, the more autonomy we grant to modern technology, the more we lose of our own. It is the technological condition.

It should be mentioned regarding Ellul’s technological system that the progression from one way of doing things to another may surely be considered technological advancement for as he stated, we strive insatiably to refine and develop the most efficient methods. But we must not be led to believe by Ellul’s use of “technological advance” that he only means the advancement of singular apparatus. My example of the mechanical pencil sharpener’s evolution to its automatic successor is but a minute piece of the puzzle. This is

not to say that a single device is entirely insignificant, for even the tiniest grain of sand is included part and parcel with the evolution of our own planet. The point is that the pencil sharpener, or the mobile dating app, or the pitchfork are all integrated into an immeasurably vast system that “works for its own change.”¹³¹ “Technological progress is not evolving technology, it is not technological objects that change because they are improved, it is not an adding up of influences on those machines or those organizations that impels them to adjust.”¹³² Ellul claims that technology advances systematically—and more importantly—autonomously; he might even say symbiotically. The advancement of technology is a “new and independent reality” whose self-propulsion is directed by a multiplicity of factors that are interconnectedly influenced and thereby develop based on the needs of *systems within systems* and the myriad ways they interact. The crescendo of technology’s systematic interconnection is what Ellul refers to as “total technization.”

Total technization occurs when every aspect of human life is subjected to control and manipulation, to experimentation and observation, so that a demonstrable efficiency is achieved everywhere. The system is revealed in the change (a technological, social change, mobility, adjustment, etc., a necessary change for continuously solving the problems raised more and more swiftly by the very existence of technology), owing to the interdependence of all the components, owing to the totality and, finally, the stability attained. This last point is particularly essential. “Detechnicization” is impossible. The scope of the system is such that we cannot hope to go back. If we attempted a detechnicization, we would be like primitive forest-dwellers setting fire to their native environment.¹³³

This should paint a general picture of the technological system and its implications. The “total technization” referred to here by Ellul relates closely to what I have expressed in terms of the technological thinking that pervades nearly all human thought. It is the process by which technology seeps into and fully infiltrates the way we perceive the world around us. “The progress with which we are imbued and whose ideology inspires all our judgements is a direct result of technology.”¹³⁴ Total technization occurs when nothing can be considered without the influence of technology. Notice too that he claims that there is no possibility for

¹³¹ Ellul, *The Technological System*, 80.

¹³² Ellul, 79-80.

¹³³ Ellul, 82.

¹³⁴ Ellul, 80.

the reversal of such a process. “From the very instant that [technology] existed in its modern reality, it produced the phenomenon of progression.”¹³⁵

But what specifically characterizes Ellul’s technological system? He outlines three main features that explain the systematic nature of technology. The first is that “the system itself is composed of subsystems: rail, postal, telephone, and air systems, a production and distribution system for electric power, industrial processes of automated production, an urban system, a military defense system, etc.”¹³⁶ He argues that this feature is both obvious and self-evident, and I would have to agree. Even the staunchest objector would have to agree that modern technology operates in this interconnected systematic manner.

The second feature is much more subtle and perhaps even seemingly counterintuitive to the first. Ellul argues that the system is inherently *flexible*. Each of the subsystems and their components can be seen as extremely rigid by their very nature. “But it seems that while this may be true for each subsystem, the ensemble per se tends to function more flexibly, and the strength and stability of technology reside in that ability to adapt.”¹³⁷

Look back historically to any of these subsystems and their ability to adapt to changing conditions. Look at where we sit at this very moment. The flexibility of technology can be seen absolutely as one of its chief defining characteristics. I sit here currently writing this thesis from the comfort of my home. However, I do not do so necessarily by choice. I might prefer to conduct such work at a coffee shop or in my office on campus. But due to the recent outbreak of what has come to be known as the “Coronavirus,” I am forced to shelter in place. Nearly every public venue has been closed to the public for fear of further spread of infection. I can no longer teach in person, nor can I attend seminar. Yet I am afforded the ability to do so via online modalities such as Zoom and Skype. Besides essential ones such as food and medications, I am unable to purchase many of the goods and services I am normally wont to. However, I can purchase such things via the internet. Nearly every interaction with other human beings that was conducted in person just a few months ago is now conducted

¹³⁵ Ellul, 80.

¹³⁶ Ellul, 108.

¹³⁷ Ellul, 108-109.

online. I can think of no greater example of the technological system's flexibility than this one.¹³⁸

Whenever technology creates, say, desperate social situations because of the complexity, the demands (which make countless young, old, and semi-capable people powerless and marginal, etc.), the free motion of technologies—it instantly establishes a social service, technologies of prevention, adaptation, readjustment, etc. These are actually technologies and hence represent the system, being meant to facilitate life in this inhuman universe. Thus, an ensemble of reparation technologies is formed.¹³⁹

The third and final feature of Ellul's technological system is that it "elaborates its own processes of adaptation, compensation, and facilitation."¹⁴⁰ As a system, it guides its own processes. It notices when adjustment is required and adapts. By Ellul's account, technology should be seen not as some neutral entity but as a system of interconnected subsystems capable of both maximum efficiency and the ability to adapt to changing conditions.

The technological system produces its own compensations, it reproduces its conditions for existing and developing; the qualities of man are part of it. This is simply a way of removing an obstacle to development and reducing the contradictions. For the system obeys a law, the law of the indefinite evolution of technology. The system cannot stabilize (contrary to the image that certain people have of it); it includes within itself its own expansion. It is a permanently expanding system. But this expansion therefore keeps challenging both the adaptation of man (and of institutions and society-to which we will return) and the very structure of the system itself. However, technology is a flexible ensemble that tends to endlessly reproduce its own reorganization. Otherwise, it would not be technology. A bit like a doll with a lead base, you can push it down and rock it, but it always regains its balance, *though in a different place from before*.¹⁴¹

My own argument for the autonomy of technology will turn out to vary from the one made by Ellul, but in my development of it, let me return to what has been said by the other thinkers I have cited.

¹³⁸ For more on this, see "Coronavirus Disease (COVID-2019) Situation Reports," World Health Organization, May 20, 2020, <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>.

¹³⁹ Ellul, *The Technological System*, 112.

¹⁴⁰ Ellul, 111.

¹⁴¹ Ellul, 116.

Korsgaard imparted a Kantian conception of autonomy, namely that to have autonomy, one must have reason. I find this claim to be entirely too rigid. I will agree that as rational beings, humans have autonomy, but I do not agree that the having of reason is a necessary condition for having autonomy. One of the main uses of the word is to describe the independence of a state or a nation. By this, are we then to regard a self-governing country as a rational being? No. Even as a stretch we might say that since an independent nation is made up of humans endowed with reason it can then be described itself as rational, but this would be to say that since every slice of a pizza is triangular, so too is the pie. Such a gross mischaracterization only implies the logical fallacy of composition.

Korsgaard also suggests that reason is what provides freedom from the control but not the influence of instinct. With this claim, I am in accord. When I am hungry, I eat. When I am thirsty, I drink. The influence of instinct informs these decisions, but it is reason that allows me to understand *why* I make them. My main point of departure from the claims of Korsgaard—and by transitivity—those made by Kant, is her insistence that autonomy may only be ascribed to humans.

As noted earlier, it is not the task of this endeavor to argue for the autonomy of non-human animals, but something I will make clear is my contention that modern technology *can* have autonomy. The question will be, does technology have autonomy in the same way we do? Can we say that technology is *innately* autonomous? Arguing for the autonomy of technology—even within one's own mind—is difficult enough, and I wager making the further argument that the autonomy of technology exists in virtue of its having reason will make for an uphill battle not worth fighting. Let me then return to Lear's analysis to demonstrate how modern technology can *become* autonomous.

Lear gave a masterful explication of what it means to have one's autonomy disavowed. Upon restriction to reservations by oppressive force, the Crow people no longer had the ability to conduct the practices that made them Crow. They were they stripped of identity; they could no longer self-govern. I made the argument in Chapter One that the more we conform to the ever growing demands of advanced technological society, the less autonomous we become, thus resulting in a diminished use of human faculties to accomplish tasks of which we are fundamentally capable *in virtue of being human*. But does this spell out the same loss of autonomy that befell the Crow people? To answer this, keep in mind that the

atrocities they suffered came in the form of expropriation. The lives and the land of the Crow people were *taken* by other rational agents.

I hope it will not be argued that the act of taking in the first place points to some motivation for doing so. Granting this, we can say that the employment of reason was involved in the decision made by white settlers to take the land and lives of Native Americans. Here, we can see reason as a shared feature had by both victim and perpetrator. From this, I maintain that reason is a property had by humans, but to be clear, this does not entail that reason is an *essential* property of all humans.

There are particular cases in which something could be characterized as being human, and yet lack reason. Consider for example a newborn infant. It is not clear that a human of this type—though certainly capable of gaining reason through further development—has it at this stage. We could also point out that a fully grown adult in an advanced vegetative state brought on by brain trauma or illness is human, but does not have the capacity to reason. I bring this up only to make clear that though autonomy is achieved via reason in humans, not all humans have reason. Recall, as well, my claim that having reason serves not as a necessary condition for having autonomy. What I argue for decisively is that if one is the type of human whose brain has developed enough to execute rational judgment and suffers not from any diminution of faculties that prompts a loss of reason, she has autonomy.¹⁴² Consider too that the lack of reason had by the newborn or one in a vegetative state is precisely what denies these particular humans the autonomy had by the otherwise rational.

The type of autonomy we enjoy is special; it is restricted only to human beings that meet the requirements described above to have reason. These humans—which turns out to be nearly all living ones—then have what I refer to as *genuine* autonomy, which simply means autonomy that is had by a rational human simply in virtue of being such. The genuineness of our autonomy is *innate* in that it does not come via any transitive manner. It is not acquired. Our genuine autonomy is guaranteed so long as we exist as humans with reason.

What then could possibly have such an autonomy otherwise? According to what I have just said, it should be impossible for technology of any kind—which by my own

¹⁴² Throughout the remainder of the thesis—when speaking of human beings—I will be referring to this particular characterization.

assertion lacks reason— to have autonomy. My use of the word ‘genuine’ should not be taken to mean that this particular form of autonomy is any more real than the autonomy that might be ascribed to technology. By genuine, I mean that it stems from the having of reason. It is the most genuine exemplification of autonomy when we consider that what autonomy fundamentally involves is the ability to self-govern; to live by one’s own rules. As I have claimed, these abilities come part and parcel with being a rational human. Regarding what was discovered about the loss of autonomy suffered by the Crow, it seems that only another rational agent would be capable of taking autonomy from another. How could it then be possible for something non-rational like technology to take our autonomy in the first place? To quell the reader’s concerns, recall that at no point did I make such a claim. Not once have I characterized technology as having reason, nor have I claimed that technology is responsible for the theft of our autonomy. The loss of autonomy we suffer originates not from technology’s wrongful appropriation thereof. We are not in the same position as was Plenty Coups and his people. That was a case of one rational agent’s theft of another’s *intellectual* property. That which denies our ability to self-govern is discovered not in the willing autonomous hand of technology but rather in that which looks back at us in the mirror. Technology most certainly does operate as an autonomous, oppressive force that interjects itself into nearly every aspect of human affairs. Its influence has become so pervasive, its integration so ubiquitous, its allure so intoxicating, that we seem fundamentally unable to live without that which it provides. Technology has become our master, and in its mastery it has *become* autonomous, but it has only done so *derivatively*.

The autonomy granted to technology by our incessant desire for further innovation and advancement does not equate to the genuine autonomy enjoyed by humans. In fact, technology cannot even enjoy its own autonomy. It cannot enjoy anything. To do so would require reason. The very fact that we can and do enjoy genuine autonomy is what makes it special. We *know* that we have it. We can accurately describe what it is like to be autonomous simply in virtue of having reason, which turns out to be precisely what brings about our genuine autonomy in the first place. Accordingly, we can also describe the sensation of losing our autonomy to whatever degree it is lost. This is not the case for technology. In fact, the only method by which technology can be described as autonomous is via the rational characterization we human beings ascribe to it. The presupposition here is

that for technology to be autonomous—nay, to be at all—requires the existence of human rational agents. The exclusive manner in which technology gains autonomy is by our endless relinquishment thereof. We abandon and abort our freedoms so that technology may through pure functionality have what I refer to as *artificial* autonomy, a second-hand, derivative version of our own. It would be a far cry to claim that technology operates rationally in the same way we do, but we do ascribe surrogate rationality to many devices. We create, develop, and make paramount the integration into our daily lives contrivances such as smartphones, smart TVs, even smart homes. Are these devices really “smart?” No doubt many are familiar at this point with the notion of “artificial intelligence,” but do we really believe though that these technologies are intelligent? It was claimed early on in this thesis that technology has become the maker of decisions, the enforcer of rules, but do we believe that they do so based on rational judgment? I would wager the answer is no, yet we can still regard them as autonomous for the same reasons Ellul ascribed autonomy to technology as a system, e.g., its independence from morality, self-sufficiency, and organizational patterns. Though these characteristics undoubtedly point to autonomy, my only point of contention with Ellul’s argument is that such an autonomy is not genuine in the sense that ours is. It is an autonomy acquired by remittance. It is a synthesized version of the genuine autonomy experienced by human beings. It becomes synthesized and thereby artificial by way of its transference from us to it. The most important thing to realize is that if modern technology has become the maker of decisions and the enforcer of rules, it has only done so because we let it.

The having of autonomy in this sense though is just as synthetic as technology itself. What technology has inherently is only *functionality*, and though it is a functionality that vastly surpasses anything humans might be capable of, it ultimately amounts to the mere completion of tasks: the doing of actions. As was pointed out early on in this chapter, this particular activity amounts only to agency. But recall that to have genuine autonomy requires *rational* agency. Ellul claimed that technology evolves and progresses in a complex systematic way, and I have made similar arguments, but there is one commonality involved in every step of technological evolution, and that is *us*. “We must not forget that technological growth results *from the procedures of the technicians*: and these procedures,

briefly, are characterized as procedures by practitioners, based on a rich harvest of experiments and observations.”¹⁴³

In Chapter One, I claimed that modern technology *does* more than it *is*. It rips through our lives with the force and vivacity of a hurricane, and though it may act like a hurricane, it *is not* a hurricane. Robots function like human beings. They do so because we made them that way. But robots are not human beings. Technology functions in an autonomous manner because it synthesizes human behavior and emulates human characteristics. Observe the front of a car and notice the eyes in the headlights and the mouth in the grill. Notice the symmetry in its design imparted by us as it was imparted to us by nature, or God if you like. Notice the functional similarities between a computer and the human brain. These are not coincidences. I argue that such technologies could not have been developed in any other way. Man creates “in his likeness.”

Modern technology may have autonomy and in so having exercise an exceedingly deep and penetrative level of oppression over human beings, but it only does so because we let it. The oppression we suffer is *self-imposed*. What’s more, the loss of autonomy we suffer does not occur because technology somehow took it away. The loss of autonomy that we experience comes as a direct result of our handing it over. Technology’s autonomy is achieved exclusively through human forfeiture. Through technological thinking, we develop and implement increasingly efficient means to the ends we desire by way of technological advancement. We hand over to modern technology the self-sufficiency it subsequently uses to dominate and oppress us. This vicious cycle of desire and dependence is what leads to the highest degree of anti-reciprocity that is immediately masked as a streamlined connection.

From the beginning of this thesis, I have described technology as being *oppressive* in its creation within us, a dependency upon that which it provides. Not unlike a heroin dealer, technology maintains all who live in the technological society under its thumb. But is it not the junkie that takes the first hit? Is it not her continuous return to the source that strengthens and further develops her addiction? And though sure to be unbearably painful, is it not her

¹⁴³ Ellul, *The Technological System*, 276.

choice to weather the storm involved with getting clean? Autonomy, as it turns out, is transitory. It can be given and taken, lost and gained. The degree of autonomy you have now does not indicate the degree to which you will have it later. There are innumerable influences and subsequent actions that promote a continual fluctuation in the amount of genuine autonomy one experiences. As for technology, insofar as it exists, it has autonomy, but it comes not through self-generation. It is afforded to the machine by those who invent, develop, advance, and use it and is therefore artificial. In response to any petition for morality in what technology does, the machine can only turn a deaf ear, for that is how it is made. Only a focus on its own advancement by its own methods can be maintained. Just as Mary Shelley portrayed over 200 years ago—whether it be heroin addiction or technological dependency—the true danger always originates in the curious young doctor, no matter how monstrous his creation.

CHAPTER 4

DIGITAL MISOGYNY

Power is in tearing human minds to pieces and putting them together again in new shapes of your own choosing.

-George Orwell, *1984*

Up to this point, I have examined the impact modern technology has on society in a number of ways. In Chapter One, I claimed that if we are to believe that technology can serve to advance humanity, we must allow for the possibility that it plays some role in determining our evolutionary path in society. The phenomenon of technological determinism can be seen clearly in the vast shift in our methods of interpersonal communication over the past 30 years. To contact someone via phone used to require access to some landline version thereof. You either called from home, work, or via payphone. Now the phone is in our pocket and so too is the ability to send an email. Undeniably, the widespread use of social media has shaped culture and society in myriad ways. We use it to tell the world a story about our lives and read the stories of others. Nearly every business has not only a website that connects it to customers but as well links to its Facebook, Twitter, and Instagram accounts. Through these platforms consumers can explore a range of products and purchase them without even leaving the comfort of their couches. These examples and many others clearly demonstrate the ability modern technology has acquired to redefine, multiply, and *determine* the ways we interact. Keeping in mind the deterministic nature of social media, I will maintain focus on how its pervasive use generates a disproportionate tradeoff of our genuine autonomy for an artificial measure of social acceptance.

Alongside of what has been said regarding autonomy, the argument I want to make clear throughout this thesis is that modern technology operates fundamentally as an oppressive force upon humanity and that its benefits do not outweigh the costs. Oppression is a common theme analyzed by contemporary feminist philosophers, and that is why I have

chosen to employ a feminist theoretical framework into this chapter. These analyses inevitably lead to discussions of sexism and misogyny, and I will argue that *digital* forms of technology such as social media operate as a high volume conduit for these oppressive patterns to manifest in a technologically advanced society.¹⁴⁴

In her book, *Down Girl: The Logic of Misogyny*, Kate Manne gives a detailed account not only of what misogyny is but also “what it *does* to women.”¹⁴⁵ As they are often conflated, she draws important distinctions between the roles of misogyny and sexism. She tells us that where sexism operates as the branch of patriarchal ideology that justifies and rationalizes patriarchal social structure, misogyny operates to police and enforce its governing norms and expectations.¹⁴⁶ Put simply, sexism is the rule, and misogyny is the belt.

As anyone who has ever felt the punishing lash of the belt knows, an equally effective form of control is the threat thereof. Thus, Manne defines misogyny in a twofold manner. The *enforcing* aspect administers punishment when women are perceived to step outside the boundaries of patriarchal social structure, for example, when a woman endeavors to take a coveted CEO position at a large company. Just as effective a measure of control is the *policing* aspect that operates to ensure confinement within the lines of demarcation: the same woman *happily* sticking to the marketing department.

Punishment—or the threat thereof—is not the sole vocation of misogyny. Manne argues that misogyny does not presuppose the hatred of *all* women. It tends to target *specific* individuals or groups. Moreover, there is a “flipside of the coin” as she puts it involving the “rewarding and valorizing of women who conform to gendered norms and expectations, in being (e.g.) loving mothers, attentive wives, loyal secretaries, ‘cool’ girlfriends, or good waitresses.”¹⁴⁷ So working holistically, misogyny also promises rewards to women who

¹⁴⁴ My use of the term “digital technology” should be taken to indicate non-physical, digitally coded applications and software that are transmitted and received via the internet. Examples of such are online magazines, videos, and blog posts, and though there are many other manifestations thereof, the main focus of this chapter is on social media platforms.

¹⁴⁵ Kate Manne, *Down Girl: The Logic of Misogyny* (New York: Oxford University Press, 2019), 13.

¹⁴⁶ Manne, 20.

¹⁴⁷ Manne, 72.

follow the rules. We will soon see how social media works to promote these limitations on one's autonomy.

Though there be myriad mechanisms in place to police and enforce women's subservience as members of a gendered class, it is the project of this chapter to argue that digital technology plays an increasingly pervasive role in the subjugation of women. With a primary focus on the use of social media, I will demonstrate how this technological appendage operates as a highly effective delivery system of misogynistic practices and paradigms. This particular manifestation of oppression uses the internet as a conduit to funnel and broadcast governing norms and expectations of the dominant patriarchal social order. Not only does social media disseminate misogyny, but it simultaneously operates as a means to *influence* conformity to the patriarchal societal structure. Thus its oppressive force is characteristically *transient* in nature, a level of policing and regulation that is administered by means of normative societal pressure and self-ordering practices.

A subtly misapprehended feature of its influence is the common belief that social media and other digital technologies are inherently *neutral* entities. One might think this especially true regarding social media as it is meant intrinsically to serve as a platform for *user generated* content. To address this concern, I will revisit the concepts of agency and autonomy brought to light in the last chapter to show that effectively hidden in plain sight by fixed and ubiquitous use, social media platforms can operate not only to enforce and police but also to *normalize* patriarchal societal structure. It will also be shown that our dependence on social media serves as a means to determine the way we feel about ourselves and others. It is just another way in which we forgo our autonomy to modern technology.

If you want to be heard, speak loudly. If you really want to be heard, use a megaphone. Commonly understood, a megaphone is a *device* used to amplify one's voice in a particular direction. In their abilities to channel ideas to widespread audiences, traditional media outlets such as newspapers, magazines, and television have operated for decades as large scale emulations of the humble megaphone. Since their advent and subsequent gain in popularity, social media platforms have become incredibly effective means by which people

create and share information and ideas.¹⁴⁸ They offer the ability to broadcast whichever details of our lives we deem appropriate to a vast and diverse audience. The use of social media provides users with a personal megaphone that they can use to easily make their voices heard. And as it turns out, people want to be heard.

Visually speaking, a more appropriate metaphor would be that of a *projector*. People use posts on social media to project images (both actual and metaphorical) of themselves to others. An attractive feature of this mode of projection is that one can *filter* what one shares on social media. Users are free to be selective in their choice of what is shared and how they share it. What is shared need not be the most intimate details of one's life, though sometimes it turns out to be. By its very nature and intention, social media is user generated. Large corporations provide the platforms and templates, but it is the users who create the content. In this sense, the users have agency to share information in varying degrees. One can tell her entire life story on a Facebook page or say nothing at all. Of particular interest to my project is that this mode of projection need not be genuine. One is able to paint an idealistic picture of oneself both in terms of perceived beauty and lifestyle. Ultimately, this projective aspect of social media is used as a means to be seen. And as it turns out, people want to be seen.

The amplification of voice and projection of image, however, only tell half the story. Also involved with the use of social media is an active level of hearing and viewing. Social media platforms are used to post images, videos, event invitations, résumés, marketing campaigns, consumer product reviews, news stories, and political ideologies. But the sharing of such content would be in vain if it were not the case that someone was viewing it. Though most users post information fairly regularly, the common user spends a vastly disproportionate amount of time viewing the posts of others who exercise the same degree of autonomy in what *they* share and how they share it.

This chapter is divided into three sections, each with its own central focus. In Section One, I give an analysis of the active projection of misogynistic norms and practices as disseminated by social media. Specific attention will be paid to notions of femininity and idealization. Section Two looks at what might result from women's consumption of content

¹⁴⁸ A short list of these platforms are Facebook, Instagram, Twitter, LinkedIn, YouTube, Pinterest, and Snapchat.

that is projected on the internet by social media. The focus of Section Three is on the foundational motivations of misogyny, the underlying nature of what is projected and consumed. Here I will give my argument on the supposed neutrality of social media. Following these three sections, I offer my conclusion on the matter.

PROJECTION

In Manne's text, the concept of expectations is referred to often as playing an integral part in misogyny as a regulatory practice. The task of this section is to illustrate the ways in which misogyny is *communicated* to women. To specify these expectations in relation to *femininity*, I first turn to an earlier exposition offered by Sandra Lee Bartky. In *Femininity and Domination*, she suggests that within the modern patriarchal society, femininity is not an inherent feature of women but rather that it is something to be achieved. She outlines a number of self-governing practices, which Manne might refer to as being dictated by the *policing* arm of misogyny: those that are required for a woman to attain the ontological instantiation of feminine. Keep in mind the contradictory nature implied here by the necessity to *achieve* being.

For my purposes, I will focus on the practice of maintaining the *size* of one's body.¹⁴⁹ Bartky tells us that the physical size and configuration of a woman's body is under constant scrutiny and that the principal expectation is that of thinness. "The current body of fashion is taut, small breasted, narrow-hipped, and of a slimness bordering on emaciation; it is a silhouette that seems more appropriate to an adolescent boy or newly pubescent girl than to an adult woman."¹⁵⁰ At the time of writing, this expectation was projected by mass media print outlets in the form of "women's magazines." Though this emulation of the social megaphone had far less range than the digital technological outlets of today, it certainly had the same directional capabilities. Bartky names a number of articles, persuasive in nature,

¹⁴⁹ This is only one of the three major practices that Bartky describes. For more on gesture, posture, and movement and the practice of displaying a woman's body as an ornamented surface, see Sandra Lee Bartky, *Femininity and Domination: Studies in the Phenomenology of Oppression* (New York: Routledge, 1990), 67-71.

¹⁵⁰ Bartky, 66.

that guide women towards dieting. Some of the titles given are “Fat-Burning Exercise Guide,” “Help Stamp Out Cellulite,” and “Six Sleek-Down Strategies.”¹⁵¹

What is being transmitted in Bartky’s description is an *ideal*. It is a gender specific picture of what a woman should look like, what she should be, but it is more than just an ideal. Where photographs of thin, attractive women in the media are delivered as projections, the content of the articles serve as vocal *instructions*, so the broadcast involves a display of what a woman must look like pictorially and specific methodologies on how to achieve this level of supposed femininity. Bartky’s claims were published about 15 years before the onset of widespread social media prevalence, but in them we can recognize that the messages in print form determined a limitation on a woman’s degree of autonomy. To be accepted in a culture where thinness defined femininity, she would have to make specific changes to the structure of her body. As will be made clear soon, this is precisely what I argue social media does to women in the modern age. Though the format becomes digital, the message remains the same. Do as we say, or else. The main difference between print and online media is that the latter stands to reach a much wider audience through more robust and complex methods.

Also worth mentioning is the connection this particular instance of technological evolution shares with what Ellul termed the “causal progression” of technology. He argued that when any form of technology becomes successful in its endeavor (in this case, print media), it is deemed worthy of further practice and advancement (into digital media). “Each technology must be successful and form the basis for a subsequent practice.”¹⁵² Through its success in determining women’s conceptions of body image, print media evolved into its subsequent digital modalities.

To bring the concept of femininity into the modern sphere, I turn to the work of Jia Tolentino. Her recent article in *The Guardian* gives a detailed account of the “ideal woman” as it is projected by social media posts.

The ideal woman has always been generic. I bet you can picture the version of her that runs the show today. She’s of indeterminate age but resolutely youthful presentation. She’s got glossy hair and the clean, shameless expression of a

¹⁵¹ Bartky, 66.

¹⁵² Ellul, *The Technological System*, 276.

person who believes she was made to be looked at. She is often luxuriating when you see her—on remote beaches, under stars in the desert, across a carefully styled table, surrounded by beautiful possessions or photogenic friends. Showcasing herself at leisure is either the bulk of her work or an essential part of it; in this, she is not so unusual—for many people today, especially for women, packaging and broadcasting your image is a readily monetizable skill. She has a personal brand, and probably a boyfriend or husband: he is the physical realization of her constant, unseen audience, reaffirming her status as an interesting subject, a worthy object, a self-generating spectacle with a viewership attached.¹⁵³

Social media's portrayal of this particular woman is described as running the show, but of this we should be skeptical. Presumably, Tolentino herself is. Through practices of self-surveillance, self-policing, and self-regulating, her appearance is flawless. She is a symbol of success and virtue. She is adored and valued by others. The ability to broadcast herself in this manner is described as a "skill." By today's standards (which happen to be set by the very means she is projecting herself) she either has—or is highly marketable and eligible to be suited by—an evenly ideal boyfriend or husband. Finally, all these criteria for idealization are confirmed by her viewership, or follower count.

Most illuminating about this analysis is what Tolentino says this ideal woman looks like. "She looks like an Instagram—which is to say, an ordinary woman reproducing the lessons of the marketplace, which is how an ordinary woman evolves into an ideal."¹⁵⁴ To augment her characterization, we might replace the word 'Instagram' with '*hologram*.' A hologram functions as an immaterial, three-dimensional *presentation* of physical matter. Though images on social media are projected primarily in 2D format, the expectation is that the viewer impart the missing dimension.¹⁵⁵ She will tend to *realize* what is presented. The point I am making here is that if what is being presented in social media posts requires realization by the viewer, it must follow that what is being presented fundamentally lacks this

¹⁵³ Jia Tolentino, "Athleisure, Barre and Kale: The Tyranny of the Ideal Woman," *The Guardian*, August 2, 2019, <https://www.theguardian.com/news/2019/aug/02/athleisure-barre-kale-tyranny-ideal-woman-labour>.

¹⁵⁴ Tolentino.

¹⁵⁵ 3D images on social media do, in fact, exist today. Though their presence is not currently regular, it seems such imagery will become commonplace soon. For more on this, see Andrew Hutchinson, "Facebook Adds New Options for Posting 3D Photos, Including 3D Photos in Stories," *Social Media Today*, April 17, 2019, <https://www.socialmediatoday.com/news/facebook-adds-new-options-for-posting-3d-photos-including-3d-photos-in-sto/552895/>.

important property in the first place. More attention will be given to the nature of holograms and their interpretations in the next section.

At this point, Bartky's words should be ringing in our ears. "Evolution" to the ideal is nothing more than a modern instantiation of her formulation of femininity as an achievement. The messages being sent by social media digitally are not unlike those sent in print form by popular "women's magazines." Messages delivered by both platforms clearly tell women that beauty, success, social standing, and femininity are not qualities intrinsic or automatically attached to the ontological truism of *being a woman*. In achieving the status of the "ideal woman," there is work to be done.

On the subject of femininity, I will return to two of Manne's claims already explicated. First, I'd like to revisit the rewarding and valorizing arm of misogyny. Recall that for those women or groups of women that satisfy patriarchal norms and expectations, there is an almost congratulatory release from hatred or threat of violence. The way today's ideal woman is portrayed on social media seems to meet these criteria in her characterization of femininity as described by Tolentino. In doing so, she doesn't threaten to challenge or violate patriarchal norms. The digital message is that though ostensibly a powerful invocation of womanhood, she remains docile and second order. She is meeting requirements, and in virtue of doing so, she does not operate as truly autonomous because the ideal woman as presented on social media is still expected to provide feminine-coded goods and services such as "simple respect, love, acceptance, nurturing, safety, security, and safe haven."¹⁵⁶ If their provision is denied, she becomes subject to the enforcing consequences of misogynistic punishment. The "logic" here seems simply to be the transitive normalization of these expectation satisfying practices, practices that ultimately take the form of *self-policing*. This is how the degree of autonomy a woman has can be limited by the way she represents herself on social media. To be ideal in the eyes of those she hopes to influence on social media, a woman's appearance and demeanor as projected by her posts must adhere to what society deems fashionable and empowered and at the same time appropriate and non-threatening.

¹⁵⁶ Manne, *Down Girl*, 110.

CONSUMPTION

Here, I will be making a shift from what is transmitted by social media to what is received. I start by outlining the findings of an Australian psychology journal article authored by Jasmine Fardouly, Rebecca T. Pinkus, and Lenny R. Vartanian on the impact of appearance comparisons made through social media, traditional media, and in person interactions. Their study involves what is known as social comparison theory.¹⁵⁷ Their findings are particularly instructive for the purposes of my analysis as they demonstrate what a woman's mental states and physical practices can look like as a result of social media consumption.

They posit that when women view social media posts of attractive strangers, they tend to make upward comparisons, i.e., comparisons to another perceived to be better off than they are. It is cited explicitly in this article that these upward comparisons made while interacting with social media are harmful to a woman's personal body image and stand to influence her "mood, and diet and exercise thoughts and behaviors."¹⁵⁸

Recall Tolentino's depiction of the ideal woman. She is described as ageless, yet youthful; every aspect of her appearance is flawless due to meticulous grooming practices. She is oft depicted in luxurious backdrops surrounded by photogenic friends and or partners. For the average consumer of social media, the bar is set high. It is, in fact, set impossibly high. When viewing images of a perfectly ideal woman living a perfectly ideal life, the

¹⁵⁷ A brief explanation of social comparison theory in Jasmine Fardouly, Rebecca T. Pinkus, and Lenny R. Vartanian, "The Impact of Appearance Comparisons Made through Social Media, Traditional Media, and in Person in Women's Everyday Lives," *Body Image: An International Journal of Research* 20 (March 2017): 31. <https://www.sciencedirect.com/science/article/abs/pii/S1740144516303217?via%3Dihub>.

"Social comparison theory proposes that people have an innate drive to evaluate their progress and standing on various aspects of their lives (Festinger, 1954). According to this theory, in the absence of objective standards, people compare themselves to others to know where they stand. Festinger (1954) differentiated between two types of social comparisons: upward comparisons and downward comparisons. Upward comparisons occur when people compare themselves to someone better off than themselves, and these comparisons typically produce negative consequences (Gibbons, 1986; Lemyre & Smith, 1985). Downward comparisons occur when people compare themselves to someone worse off than themselves, and downward comparisons typically produce positive consequences (Gibbons & Gerrard, 1989; Marsh & Parker, 1984; Wills, 1981). People can also make lateral comparisons, in which they compare themselves to others whom they perceive to be the same as them in a particular domain (Harris, Anseel, & Lievens, 2008; Pinkus, Lockwood, Schimmack, & Fournier, 2008; Sohn, 2011). Lateral comparisons, like downward comparisons, generally have positive effects (Wheeler & Miyake, 1992)."

¹⁵⁸ Fardouly, Pinkus, and Vartanian, "The Impact of Appearance," 32.

average woman can *only* make upward comparisons, and the more she views these types of images, the further degraded her self-image can become. Remember that having autonomy means living one's life by *her own* rules that she sets for herself. If the consumption of social media can alter the way she feels about herself and provokes drastic changes to her physical diet and exercise behaviors, what we are seeing is a *deviation* from the path she might take otherwise. She is living not by her own, but by the rules set forth by the influence of digital technology. Not only is her autonomy limited, it is *determined*. As mentioned in Chapter Three, I do not believe that we are enslaved by modern technology as much as we are bound to its influence due to our own unflinching dependence upon it.

Upon first inspection of the ideal woman, I suggested that her images were of a holographic nature, a perfect immaterial projection of a seemingly existent reality. This is the greatest trick that social media plays on its users: it makes the unreal real. So if and when a woman is unable to meet the standards of something that does not and cannot exist, upward comparisons can lead to negative consequences such as self-regulatory dieting behavior and eating disorders. I wager that much has already been said about these issues in both the fields of psychology and philosophy,¹⁵⁹ so I would like to offer my stance on a prevalent issue that tends not to receive as much attention in either arena.

A critical and specific concern I have about social media consumption is *who* is consuming the content it provides. One might think that images of the ideal woman are meant to inspire others to improve or *update* their appearance, social standing, and lifestyle in general. The viewer might think that if she had the right clothes, makeup, hair products, stylist, nutritionist, personal trainer, etc., she too could achieve the status of the ideal woman. This, I argue, is the kind of thinking that keeps the cycle of oppression coupled with social media in continuum. It is not the case that every woman is socioeconomically situated to make such "improvements." A typical user of social media may think to herself, "If she can do it, so can I." But what happens when she cannot? If insecurities are increased simply by

¹⁵⁹ For more on this, see Sam Wren-Lewis, "Control," in *The Happiness Problem: Expecting Better in an Uncertain World* (Bristol, Bristol University Press, 2019); and Heather H. Widdows, "Life Is One Long Catwalk," in *Perfect Me: Beauty as an Ethical Ideal* (Princeton: Princeton University Press, 2018).

viewing images of the ideal woman on her phone, imagine what occurs when the same woman finds herself unable to meet the ideal standards offline.

Among other concerns raised by Fardouly, Pinkus, and Vartanian are the ways in which social media's influence is becoming more prevalent on young women. They state that "the popularity of social media among young women is outpacing the popularity of traditional media."¹⁶⁰ They recognize (as I have) that unlike print media or television, social media content is fundamentally user generated. So instead of making upward comparisons to inaccessible targets such as celebrities, young women make such comparisons to those within their personal network.¹⁶¹ This can include friends, family member, coworkers, etc. These comparison targets are people that the consumer has access to both on and offline. It is one thing to make social comparisons to a larger-than-life celebrity; it is a different thing altogether to make such comparisons to one's friend or classmate.

A final consideration I offer of social comparisons to *known* subjects is that those posting images of themselves have the ability to enhance the images digitally. It is commonly understood that images of supermodels and celebrities are enhanced, but consider the fact that most smartphones today are equipped with software to conduct such editing processes by the end user as well. One need not be an expert to self-regulate. An objection could surely be raised by claiming that in knowing what the subject of a filtered photo looks like offline, the viewer could make clear distinctions between the two, thus seeing altered images taken in optimum conditions of angles, lighting, and surroundings should raise no concerns. But just as it happens to occur within offline social circles, belonging to an online network with women who subscribe to these practices tends to compel those within it to follow suit. Maintaining the status quo in the classroom or office might require physical makeup strategies and expensive hairstyles, but doing so online requires digital filters and face softening or slimming software and there does seem to be a reciprocity of influence in one's ability to determine the other. Again, we can turn to Bartky's work to understand these interpersonal instantiations of feminine regulation. "The disciplinary power that inscribes

¹⁶⁰ Fardouly, Pinkus, and Vartanian, "The Impact of Appearance," 32.

¹⁶¹ Fardouly, Pinkus, and Vartanian, 32.

femininity in the female body is everywhere and it is nowhere; the disciplinarian is everyone and yet no one in particular.”¹⁶²

THE SUPPOSED NEUTRALITY OF SOCIAL MEDIA

Up to this point we have looked at both the transmission and reception of social media content and some of the affects it has on women. Primarily, I have elucidated social media’s propensity to disseminate misogynistic norms and practices and thereby limit and alter one’s degree of autonomy, but to conclude my argument, I am in debt to the reader to provide a response to the question whether social media exists as a neutral entity. To do this, I must provide a more specific analysis of human *interaction* with the content of social media.

Manne is highly critical of the theory of *humanism* and its broad claim that to oppress or harm a person or group of persons, the target must be seen as less than human or lacking the characteristics normally associated with humanity.¹⁶³ She points out that for someone to be a threat, she must be human. “Moreover, in being capable of rationality, agency, autonomy, and judgment, they are also someone who could coerce, manipulate, humiliate, or shame you.”¹⁶⁴ Accordingly, Manne argues that dehumanization cannot exist within the scope of misogynistic punishment as it is typically administered when a woman withholds the bestowal of goods of which only a human woman is capable.¹⁶⁵ But what does being human have to do with the supposed neutrality of social media or anything within the modern technological sphere for that matter? In a word, *everything*.

Recall these three considerations I have made of social media. First, the existence of social media is *dependent* upon user generated content. Secondly, recall my analysis of its broadcasting *abilities*. Above all, when considering the neutrality of social media and its operative role within the scope of modern technology, recall that its sole *intention* is to provide a platform upon which people may create and share ideas and opinions. Something

¹⁶² Bartky, *Femininity and Domination*, 74.

¹⁶³ Manne, *Down Girl*, 134.

¹⁶⁴ Manne, 147.

¹⁶⁵ Manne, 176.

that retains abilities, dependency, and most importantly, intention could arguably be said to have agency and, to some degree, autonomy. It is difficult to arrive at the conclusion that something with agency and autonomy be neutral, for the former implies the *doing* of actions and the latter, *living* by self-made rules. All of these properties can be attributed to what it means to be human. So it seems that to identify whether social media is neutral, the question to be asked is how *human* “it” is.

Consider the claim more broadly attached to technology in general offered by Ellul. Recall his assertion that technology functions as an “organism,” that, in virtue of operating as a system, collectively propels its own progress and advancement. It should be no surprise then that for these reasons, he did not consider technology to be a neutral entity.

For me, the nonneutrality of technology signifies that technology is not an inert, weightless object that can be used in any manner, any direction by a sovereign mankind. Technology has *in itself* a certain number of consequences, it represents a certain structure, certain demands, and it brings certain modifications of man and society, which force themselves upon us whether we like it or not. Technology, of its own accord, goes in a certain direction. I am not saying that this is absolutely irremediable, but rather, that in order to change this structure or redirect this movement we have to make a tremendous effort to take over what was thought mobile and steerable, we have to become aware of this independence of the technological system, which is opposed by the reassuring conviction of technological neutrality.¹⁶⁶

On Ellul’s account, technology is not neutral, and he, in fact, makes many solid arguments for its autonomy as well. Regarding social media (and modern technology as a whole for that matter), I would label neither as neutral but for different reasons than Ellul might.

Recall from the last chapter that though I share his belief that technology is autonomous, I do not regard its autonomy in the same way as he did. I argue that the only way technology can gain autonomy is via the forfeiture of our own genuine autonomy that we have in virtue of being rational agents. Though I allow for the ascription of both agency and autonomy to modern technology, its agency is not rational and its autonomy is not genuine. For to have these properties, one must have reason. I do not mean to say that humans are the only beings with this feature. For all I know, it is also had by non-human animals and an infinite host of extra-terrestrials and Gods I have not yet had the pleasure of

¹⁶⁶ Ellul, *The Technological System*, 155.

meeting. What I can be certain of, though, is that in lacking rational agency, no form of technology has genuine autonomy, only a synthesized, artificial version thereof. This artificial emulation of autonomy does, however, grant technology the ability to control and determine not only our human behaviors and thought processes but also our very societal evolution, but it must always be remembered that if we really wanted to, we could take it all back.

We could reclaim the autonomy granted to social media by simply putting it down. In fact, many have already made this shift and others simply never picked it up in the first place. For those who choose to integrate the use of social media into their lives, this seems like a task either impossible or simply not worth the undertaking. Not unlike the song of the siren, the allure of digital technologies such as social media is too seductive. No matter how destructive its influence, how deterministic its nature, they refuse to give it up. The prospect of retrieving that degree of genuine autonomy lost to social media is seen as a benefit not worth the forfeiture of something that operates “perfectly” as disseminator of misogynistic ideology.

CHAPTER 5

SURVEILLANCE AND CONTROL

Relying on the government to protect your privacy is like asking a peeping tom to install your window blinds.

-John Perry Barlow

How much should we care about our right to privacy, and how much of a role does it play in the total amount of autonomy experienced? Does it make sense to believe that “privacy is a function of liberty” as some do?¹⁶⁷ If we are to follow this line of reasoning, then we are bound to the presupposition that to experience liberty, we must too *have the option* to keep as much of our lives private as we deem appropriate or necessary. In doing so, we would be living by a specific self-determined rule and to that extent, have autonomy.

However, an important consideration to make regarding autonomy and privacy is that in virtue of having the former, the rational agent has the final say on how highly she values the latter. This is because the mere exercise of choice of whether one’s privacy is important or not too is an indication of autonomy. If one is not concerned with the retention of her privacy whether it be on the internet or on the street, being surveilled is of no concern to her. Regarding this particular individual, I seemingly have not a leg to stand on. That is unless I make the claim ethical. The argument I want to make is that the invasion of privacy implicit in what I call *technological surveillance* as administered to *everyone* who uses modern technology should be regarded as impermissible.¹⁶⁸ The validity of this claim stems from the possibility of there being at least one person amongst the millions who regularly use modern

¹⁶⁷ Alan Rusbridger and Ewen MacAskill, “Edward Snowden Interview—The Edited Transcript,” *The Guardian*, July 18, 2014, <https://www.theguardian.com/world/2014/jul/18/-sp-edward-snowden-nsa-whistleblower-interview-transcript>.

¹⁶⁸ “Technological surveillance” should be recognized in its use throughout the chapter as the unwarranted audio, visual, and or digital monitoring of one rational agent’s affairs by another.

technology who *does* value her privacy. This also includes the bold inference that generally speaking, there exists far more than just one person who *does* value her privacy enough to feel violated when monitored by technological means.

Accordingly, it is important to note that even if one does not value *her own* privacy, discussing or disseminating the details of anyone who might, say, by transmitting her address, telephone number, or any other number of personal details via text or email to some third party could be seen as a violation. In fact, just talking about someone else's whereabouts over the phone could be considered in the same light. My point is that whether you place value on your own privacy or treat it haphazardly, not everything is about you; your actions online can have consequences for others.

In this chapter, I will provide the reader with a greater understanding of what it means to have our privacy pilfered by means of *surveillance*. There will be a discussion on how surveillance is used to control persons within a given society. We will also return to a theme that has come up throughout this thesis, that this form of oppression is *self-instituted*. We seem to, without concern, place ourselves in a position to be regulated in this manner. Perhaps many are oblivious while others simply remain unconcerned that there are numerous structures in place to ensure that residents of this and many other countries are being watched, listened to, monitored every day.¹⁶⁹ Many of these surveillance methods are unavoidable, such as automated license plate readers, public space cameras, and audio/visual surveillance employed on public transportation. I argue, however, that all who use information devices such as mobile phones, computers, and even credit cards *place themselves* in a position to be monitored. Each time these devices are used to make calls, send texts, watch funny cat videos, interact on social media, purchase goods and services, send and receive emails, or conduct internet searches, what is said and heard, sent and received, viewed and posted, bought and sold, and taken interest in is monitored and scrutinized. The use of these devices inherently implies a self-imposed forgoing of one's

¹⁶⁹ Sara Schwartz, "9 Ways You're Being Spied on Every Day," *Huffington Post*, updated December 6, 2017, https://www.huffpost.com/entry/government-surveillance_n_5084623?guccounter=1&guce_referrer=aHR0cHM6Ly9kdWnrZHVja2dvLmNvbS8&guce_referrer_sig=AQAAADYt376flYEMuJwohgRZR4TxYYwv2JBEPmEj5DwPmncbUzmk97aUn-sGYDg5kyBGc5OPfxoMt_cvISnsZWEhQZrKzJ5WvxnarwavFQt_SKvrXDd1aLyOExH-nBVUZ9jKJkbU1iGSpf7p4ylurvf1X8gBHiF84nWQQmilQ1Ki1kI.

autonomy. One who places even a shred of value on the retention of her privacy who, in turn, voluntarily discloses her personal information via modern technology could hardly be seen as living by rules set for herself. Not only are these data monitored, but they are stored as well. This retention of another's personal information without permission further demonstrates a loss of autonomy and I argue is deserving of just as much attention as might be given to the manner in which the data is collected. The collection and storage of one's data in this sense does imply a *taking*, but as mentioned before, though in a different way, we must not be tempted to think that in collecting and storing our intellectual property it is modern technology is the *taker*. No doubt, we are stripped of our autonomy by technological means, but the identity of the thief lies not in anything technological.

A theme I continually return to is that those who integrate most fully the modern technological advances that control them believe they experience the greatest degree of freedom. When considering modern forms of surveillance, this could not be further from the truth. I will consider anyone using modern technological devices such as telephones (both standard landline and mobile), computers, “smart” home security systems like Nest, and virtual assistants such as Alexa to be what I call *users*. Through the use of these contrivances, these people put themselves in a position to be surveilled by the second category of persons I will be covering in this chapter, the *sentinels*. The primary responsibility of the sentinel is to record as much information about the user as possible by means of surveilling her conduct and behavior. But simply monitoring the day to day activities of the user will not be enough. Also crucial to the mission of the sentinel is the *storage* of this data for later use, to have a “standing reserve” of information that can be referred back to at any time.

Though a large portion of my critique has been aimed at the autonomous system of control we term ‘technology’, the focus of this chapter is on human beings and the manner in which they use technology to control one another. As was just alluded to, it is the human sentinel who is guilty of pilferage. Generally, there are two ways in which such control is administered via surveillance. The first is by way of *corporate* surveillance. The sentinels in this category are technicians and engineers at large and powerful tech companies such as Google, Amazon, and Facebook. The sentinels behind the veil of these entities—as motivated by an all-out perversion of the capitalist venture—have developed an ingenious method to influence the decision-making processes of the consumer. This is done in many

ways, but among the most prevalent are the digital monitoring of users' internet searches and the audio surveillance via information devices of what is said by users in their day to day lives.

The second method by which the user is controlled is administered by what I will call *governmental* surveillance. Methods vary greatly, but there are three main components. The first is simply the audio and visual recording of conduct by means of publicly installed video cameras and microphones. The second is done by the monitoring, recording, and storage of a person's telephone conversations. The third, and possibly most invasive method, is the continuous monitoring and storage of the user's internet activity. In these instances, the sentinel is the very structure implemented to protect the rights of its people but instead operates as a system designed to deny that which it promises to grant and uphold.

Notice here that one does not necessarily need to be a user of modern technology to be surveilled. The first method of governmental surveillance does not require the use of any modern technological device to remain under the thumb of the governmental sentinel. One only need walk about and congregate in the public arena to become subject to the monitoring of her conduct. This non-user I will refer to more generally as the *citizen*. Being perhaps the greatest minority in existence today, she is still not free from surveillance outside her own home. We might say that all users, too, fall into the category of citizen by existing in an advanced technological society and that one can easily go from user to citizen by way of the use or non-use of modern technology. It is this possibility of transition from user to citizen that implies a choice of degree to which one is controlled. There will be more to come on this toward the end of the chapter.

CORPORATE SURVEILLANCE

So with a general understanding of the ways in which surveillance takes place, I will now move into the specifics of its operation. Let us begin with the corporate method. In her seminal book, *The Age of Surveillance Capitalism*, Harvard Business School professor Shoshana Zuboff gives an extraordinarily detailed account of how corporate surveillance originated and is practiced today. As the title suggests, she argues that "Surveillance Capitalism" is the current standard for technological control over the purchasing practices of today's consumers.

Surveillance capitalism unilaterally claims human experience as free raw material for translation into behavioral data. Although some of these data are applied to product or service improvement, the rest are declared as proprietary *behavioral surplus*, fed into advanced manufacturing processes known as “machine intelligence,” and fabricated into *prediction products* that anticipate what you will do now, soon, and later. Finally, these prediction products are traded in a new kind of marketplace for behavioral predictions that I call *behavioral futures markets*. Surveillance capitalists have grown immensely wealthy from these trading operations, for many companies are eager to lay bets on our future behavior.¹⁷⁰

From her definition of the term, we find that surveillance capitalism sees the experience of the consumer not as a *subject* to be studied for market research but rather as an *object*. The consumer’s experience is considered as data to be compiled as a method by which the corporate sentinel can predict what the user will do next.

Zuboff’s analysis of the subject is expansive and very well researched. One could write an entire thesis on the information she provides. But for the purposes of this chapter, I will keep a narrow focus on what she discusses concerning the two methods of corporate surveillance listed above: the monitoring of consumers’ internet searches and the audio surveillance of consumers’ speech. Maintaining that order, let us first explore the ways in which this particular sentinel derives information and makes suggestions based on our internet searches.

Each time you type something into a search engine and press enter, that which you query is captured and stored by, for instance, Google. Zuboff informs us that not only is the keyword itself noted but additionally “each Google search query produces a wake of collateral data such as the number and pattern of search terms, how a query is phrased, spelling, punctuation, dwell times, click patterns, and location.”¹⁷¹ This collection of information is what Zuboff terms “behavioral data,” those data that the user freely provides to Google—or any given search engine—which the sentinel then uses to predict future patterns. Behavioral data alone, though, are of little use to the search provider unless they are *stored*.

¹⁷⁰ Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York: Public Affairs, 2020), 8.

¹⁷¹ Zuboff, 67.

During Google's early stages of implementation in the late 90s, "these behavioral by-products were haphazardly stored and operationally ignored."¹⁷² In the beginning, Google itself did not see the immense potential value of these data; they were merely supplementary bits of information retained within the servers as a result of the users' searches. The original use of this data was, as the company claimed then and still does today, to improve the user's experience by catering search results to the individual based on her search patterns. "Google's engineers soon grasped that the continuous flow of collateral behavioral data could turn the search engine into a recursive learning system that constantly improved search results and spurred product innovations such as spell check, translation, and voice recognition."¹⁷³ But as we have seen throughout human history, the road to hell is often paved with good intentions.

It was not until Google found itself in need of additional revenue streams that behavioral data emerged as a vast untapped mine of profitability. During the first two years of its establishment in 1998, the founders of Google, Larry Page and Sergey Brin, maintained a "passionate and public opposition to advertising."¹⁷⁴ But in December of 2000, a damning *Wall Street Journal* article incited concerns of future profitability in the company's investors. The article generally targeted many Silicon Valley startups by saying, "Simply displaying the ability to make money will not be enough to remain a major player in the years ahead."¹⁷⁵ The article maintained that what would be required would be "an ability to show sustained and exponential profits."¹⁷⁶ In response to investor anxiety, Page and Brin departed from their earlier convictions on advertising and set the then seven-person internal department, AdWords, on a project to find new streams of revenue. "Operationally, this meant that Google would turn its own growing cache of behavioral data and its computational power and expertise toward the single task of matching ads with queries."¹⁷⁷ Put simply, the

¹⁷² Zuboff, 67.

¹⁷³ Zuboff, 68.

¹⁷⁴ Zuboff, 74.

¹⁷⁵ Zuboff, 74.

¹⁷⁶ Zuboff, 74.

¹⁷⁷ Zuboff, 74.

advertising would have to become “relevant” to users. More appropriately, as Zuboff remarks, “a particular ad would be ‘targeted’ to a particular individual.”¹⁷⁸ She terms this immense reserve of user information as “behavioral surplus.” Not only is this what ultimately led to the “sustained and exponential” profits Google was after, it also served as the origin of the epoch of corporate surveillance or what Zuboff would call surveillance capitalism.¹⁷⁹

Worth noting at this point is what was discussed in Chapter 2 regarding Heidegger’s argument that the goal of technology is to place that which is derived for modern technological purposing into “standing reserve.” “Everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a future ordering.”¹⁸⁰ The collection and storage of user’s search patterns on the internet by any means—by Google or otherwise—I will argue is fundamentally related to this claim.

This brings us sharply to Zuboff’s claim that our conduct on the internet is *commodified*. This modern instantiation of human behavior is monitored, commandeered, and stored for the purpose of predicting future instantiations thereof by companies like Google so that they might turn a profit. She claims that what we do online is digitally *dispossessed*.

Today’s owners of surveillance capital have declared a fourth fictional commodity expropriated from the experiential realities of human beings whose bodies, thoughts, and feelings are as virgin and blameless as nature’s once-plentiful meadows and forests before they fell to the market dynamic. In this new logic, *human experience is subjugated to surveillance capitalism’s market mechanisms and reborn as “behavior.”* These behaviors are rendered into data, ready to take their place in a numberless cue that feeds the machines for fabrication into predictions and eventual exchange in the new behavioral futures markets.¹⁸¹

In other words, we ourselves have become the resources mined for standing reserve. “Knowledge, authority, and power rest with surveillance capital, for which we are merely

¹⁷⁸ Zuboff, 74.

¹⁷⁹ Zuboff, 99.

¹⁸⁰ Heidegger, *The Question Concerning*, 17.

¹⁸¹ Zuboff, *The Age of Surveillance Capitalism*, 100.

‘human natural resources.’”¹⁸² The technological powers that be may claim to be monitoring our conduct online to cater their services to our individual wants and needs, but the true motivation has become profitability by use of human beings as means as opposed to ends as Kant so righteously declared should be impermissible as beings endowed with reason.

Another sentinel that has become a leading frontrunner in the use of corporate surveillance is Facebook. Nearly everyone today is aware of the “Like” button. This seemingly harmless digital apparatus is clicked on by Facebook users to express interest in or approval of other users’ posts on the social media platform. However, there is a much deeper functionality behind the veil of congeniality proposed by the “Like” button. Each time you “like” a post, something called a “cookie” is installed into your computer, tablet, or smartphone. Not unlike a burrowing parasite, these tiny bits of code burrow into your device to establish and allow intersystem communication between Facebook and the end user. The information gained through this exchange is used by Facebook analysts to determine which ads will display based on your interests. Again, the user’s behavior online has become a human resource to be exploited for the purpose of targeted advertising that will lead to profitability of the sentinel.

Some might say, however, that this degree of privacy invasion is to be expected. When one signs up for a Facebook account, she is required to read and agree to a lengthy terms and conditions document, which outlines all of this in the privacy section. All Facebook users are informed of the risk they are taking by checking the “I agree” box. However, in an article published by privacy researcher Arnold Roosendaal, it was found that even non-users of Facebook’s services were being monitored as well simply by viewing webpages associated with Facebook data.¹⁸³ So as it turns out, even those who do not agree to Facebook’s terms are possible targets of corporate surveillance.¹⁸⁴

¹⁸² Zuboff, 100.

¹⁸³ For the details on this, see Arnold Roosendaal, “Facebook Tracks Everyone: Like This!” *Tilburg Law School Legal Studies Research Paper Series*, no. 03 (November 2010), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1717563.

¹⁸⁴ Since Roosendaal’s findings, much has transpired. See pages 158-161 of Zuboff’s *The Age of Surveillance Capitalism* to learn more about the many allegations made against Facebook regarding its surveillance methods and the ways in which the company defended itself by claiming that these practices were merely a “glitch” or “bug” in the system.

Perhaps this, and what was expressed in regard to the data mining tactics employed by Google could be seen as harmless. In fact, there are some who might say they enjoy these predictive features in that they are presented with ads for products they actually are interested in. With these persons, I cannot and will not argue. But I will present one more example that might change the mind of even the most liberal user.

Zuboff tells of a particularly disturbing service offered by various companies referred to as “service-as-software” (SaaS). She more appropriately deems it as “surveillance as a service” (SVaaS). For example, app-based technologies are being used by financial lenders to monitor the digital and physical behavior of potential borrowers before deciding whether they will provide a loan. One particular app “instantly establishes creditworthiness based on detailed mining of an individual’s smartphone and other online behaviors, including texts, emails, GPS coordinates, social media posts, Facebook profiles, retail transactions, and communication patterns.”¹⁸⁵ Not only are these digital data collected, but physical patterns of behavior such as phone charging frequency, whether a user returns phone calls and how long it takes her to do so, or the distance a user travels each day are also taken into account.¹⁸⁶ Though the common user of information devices might think that data mining for the purpose of targeted advertisement is permissible, this degree of privacy invasion can and will stand directly in the path between a user and her possibility for financial security. This instantiation of corporate surveillance entails not the common, “that’s just the way it is” mentality. It brings to the forefront a much deeper element of control involved with the surveillance perpetrated by corporate sentinels on the users requiring their services.

So far, we have explored the actualities of corporate surveillance relating only to the user’s conduct online. There is, however, another important feature of this invasive oppressive force that I would like to explore. Much of modern technology today exists in the home, and this is where we use it primarily. Digital assistants such as Alexa and Nest are among the most popular. With these devices, a user can simply verbalize the desire to listen to a particular song or artist, change the temperature on her thermostat, turn lights on and off,

¹⁸⁵ Zuboff, *The Age of Surveillance Capitalism*, 172.

¹⁸⁶ Zuboff, 172.

lock and unlock doors, etc. These capabilities might seem to provide freedom within one's home, but consider also that having these devices installed presupposes the remittance of one's control to these functionalities. And, of course, many of these devices are actively listening to your speech patterns in search of specific indicators of what you may desire as a consumer. "Pieces of your talk are regularly farmed out in bulk to third-party firms that conduct 'audio review processes' in which virtual scorers, tasked to evaluate the degree of match between the machines text and the original chunk of human speech, review audio recordings retained from smartphones, messaging apps, and digital assistants."¹⁸⁷ So not only is this data used to provide targeted advertising of goods and services on any device connected to the home system, it is also collected by third party firms to *perfect* the devices' ability to match what is recorded to the individual user.

It is insisted upon by companies such as Amazon, Google, and Microsoft that these data are anonymous and cannot be linked to individual users, but Zuboff cites the findings of a freelance journalist, A. J. Dellinger, who discovered loopholes in these claims of anonymity.

Within the recordings themselves, users willingly surrender personal information—information that is especially valuable in these review processes because they are so specific. Uncommon names, difficult-to-pronounce cities and towns, hyperlocal oddities [...]. I heard people share their full names to indicate a call or offer up location-sensitive information while scheduling a doctor's appointment [...] the recordings capture people saying things they'd never want heard, regardless of anonymity [...]. There isn't much to keep people who are listening to these recordings from sharing them.¹⁸⁸

Zuboff tells of one device in particular that arguably took these capabilities too far. Besides smartphones and digital assistants, Smart TVs are now highly sought after by consumers of modern technology. But in 2015, it was found by privacy advocates that Samsung's line of these devices may have been too smart. Not only when instructed to do so, these particular Smart TVs were recording everything said within an earshot of the system. The TVs were capturing phrases such as "*please pass the salt; we're out of laundry detergent; I'm pregnant; let's buy a new car; we're going to the movies now; I have a rare*

¹⁸⁷ Zuboff, 262.

¹⁸⁸ Zuboff, 262.

disease; she wants a divorce; he needs a new lunch box; do you love me?—and sending all that talk to be transcribed by another market leader in voice recognition systems, Nuance Communications.”¹⁸⁹ If we consider the fact that the unique individual fingerprint associated with our voices is something that many firms regard as their sole object of interest as Zuboff has suggested, having the intimate details of our lives recorded in this manner should be alarming at a minimum.

In most cases, I am sensitive to the possible objections that may arise to my claims. But regarding what has been said in this example, I simply will not concede. Technologies of this nature make possible an inexcusable degree of invasion of privacy, and it is my contention that the manner by which these sentinels monitor and store our speech, thoughts, and actions is unquestionably oppressive. We are given no access to check and balance the capabilities of such contrivances, and short of absolute boycott, the oppression will not stop.¹⁹⁰

Zuboff paints an illuminating picture of the role modern technology plays in the limiting of our autonomy. What I have discussed concerning her work only slightly scratches the surface of what she has to offer. We have much to learn from her devotion to the truth, and I argue that due to her research methods, the clear establishment of her claims, and the candor put forth in exposing truths to which most turn a deaf ear, we philosophers should heed her warnings well as they are enormously relevant and undeniably insightful.

As I have been arguing throughout my own analysis, these instances of corporate surveillance simply involve another manifestation of an oppressive force that is *self-levied*. We can sit here all day reveling in our accusations that Google, Facebook, and Amazon are wrongfully dispossessing us of our innermost thoughts and feelings, but the truth of the matter is that we are fundamentally the ones to blame, for we, the users, seem unable to live without the various technologies that the sentinels provide. Sure, tech giants such as the ones we have looked at thus far make a convincing case for the necessity to buy what they are selling, and most do. But it must be remembered that in all of this, we do have a choice. And

¹⁸⁹ Zuboff, 263.

¹⁹⁰ More will be discussed on this in the conclusion.

if I am correct, then one will have a difficult time arguing against the oppression imposed by something that one refuses to live without.

GOVERNMENTAL SURVEILLANCE

It is generally accepted that while in public, our actions and activities are subject to monitoring by both audio and video surveillance equipment. Some of these methods are employed by private companies and some by law enforcement.¹⁹¹ Some might say that being monitored while in public is just indicative of the world we live in today.¹⁹² It could be argued that the modern advantages associated with existence in a technologically advanced society fundamentally come at the cost of our privacy. But just as we have seen with corporate surveillance, I will show that governmental surveillance is just as—if not more so—oppressive.

Consider the fact that deeply intimate and private aspects of your life are being regularly recorded and stored each time you make a phone call, send an email, or use a search engine. Put simply, when you communicate via telephone or on an internet connected device, *you are being monitored*. But in this case, the deployment of surveillance stems not from capitalist profit motive. In what is to be discussed for the remainder of the chapter, I will uncover the aggressive tactics employed by our own government to observe and control its populace.

On October 26, 2011, President George W. Bush signed a piece of legislature known as the USA PATRIOT ACT (Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism).¹⁹³ This enabled the NSA to monitor and record the phone calls and digital communications of every U.S. citizen.

¹⁹¹ For more on this phenomenon, see Luis Gomez, “Cameras on Nearly 3,000 Street Lights all over San Diego, Police Take Interest in Video,” *The San Diego Union-Tribune*, March 19, 2019, <https://www.sandiegouniontribune.com/opinion/the-conversation/sd-san-diego-street-light-sensors-camera-for-law-enforcement-use-20190319-htlstory.html>.

¹⁹² Arguably, there is much to be said about audio/visual surveillance of the common citizen, but for the purposes of this project, I adhere mainly to those systems of governmental surveillance involving the monitoring of telephonic and internet communications.

¹⁹³ For official language of the Patriot Act, visit: <https://www.govinfo.gov/content/pkg/PLAW-107publ56/html/PLAW-107publ56.htm>.

In June of 2013, former NSA contractor, Edward Snowden leaked thousands of classified documents to the press revealing the NSA's methods and abilities to intercept all Americans' phone calls and internet traffic.¹⁹⁴ Subsequently, President Barack Obama addressed public concerns by describing plans to reform NSA spying. He stated, "They're not abusing authorities in order to listen to your private phone calls, or read your emails."¹⁹⁵ The original phrasing of the Patriot Act was drafted explicitly in its primary intention to seek out and stop the spread of terrorism. In his speech, President Obama was intending to make the case that the common, law-abiding American need not be concerned and would not be directly affected by the conduct of the NSA.

Upon hearing this speech, one might assume that effective measures would be enacted to protect the privacy of Americans' tele/data communications. However, more recently in 2018, *The New York Times* reported that the NSA had tripled its data collection from U.S. phone companies.¹⁹⁶ So though there was a changing of the guard in terms of presidential leadership, the NSA not only continued to monitor residents of the United States but actually increased its efforts in doing so three-fold.

Within the philosophy of technology, there is rising concern for digital privacy and the ethics of technology. As the emphasis of this section is on the ethical implications of governmental surveillance and data collection, I call upon our old friend, *utilitarianism*, to understand better the consequences of governmental surveillance and decide whether it is justified. In other words, is far reaching surveillance of the general public authorized by the Patriot Act beneficial, thus providing the best consequences for Americans?

Typically, Jeremy Bentham is associated with "act" utilitarianism. For example, imagine a Marine jumping on a hand grenade thus taking the brunt of its explosion and

¹⁹⁴ Barton Gellman, Aaron Blake, and Greg Miller, "Edward Snowden Comes Forward as Source of NSA Leaks," *The Washington Post*, June 9, 2013, https://www.washingtonpost.com/politics/intelligence-leaders-push-back-on-leakers-media/2013/06/09/fff80160-d122-11e2-a73e-826d299ff459_story.html.

¹⁹⁵ Spencer Ackerman and Dan Roberts, "Obama Presents NSA Reforms with Plan to End Government Storage of Call Data," *The Guardian*, January 17, 2014, <https://www.theguardian.com/world/2014/jan/17/obama-nsa-reforms-end-storage-americans-call-data>.

¹⁹⁶ Charlie Savage, "N.S.A. Triples Collection of Data from U.S. Phone Companies," *The New York Times*, May 4, 2018, <https://www.nytimes.com/2018/05/04/us/politics/nsa-surveillance-2017-annual-report.html>.

ensuring the safety of his squad. “An action then may be said to be conformable to [the] principle of utility, or, for shortness sake, to utility, (meaning with respect to the community at large) when the tendency it has to augment the happiness of the community is greater than any it has to diminish it.”¹⁹⁷ For Bentham, an act is good when its consequences increase the happiness of the community at large. In following the language used by Bentham and the broader logic of language, we could—at the very least, generally—call the American public a community.

In slight variation, John Stuart Mill brought about what is commonly known as “rule” utilitarianism. An example of this would be a given company’s policy that if an employee is feeling ill that she not come into the office, for to do so would create the possibility of getting others sick. “All action is for the sake of some end, and rules of action, it seems natural to suppose, must take their whole character and colour from the end to which they are subservient.”¹⁹⁸ Mill suggests that rather than actions, we should focus on which rules will promote the highest degree of happiness for those who fall subject to them.

How might we apply these variations of utilitarianism to the Patriot Act considering that though it was ostensibly put in place to protect all Americans from the threat of terrorist infiltration and attack, it also necessitates the unwarranted audio and digital surveillance of all American citizens? The Patriot Act operates as a piece of legislation that involves specific circumstances and persons. By its own language, we are led to believe that the intended targets of surveillance are those suspected to be involved with terrorist organizations and capable of committing acts of terrorism upon innocent civilians. However, as has been shown, the focus is not centralized in this manner. *All* Americans must be monitored in order to weed out those that might pose a threat. As a matter of policy, it is a matter of rule. The NSA has made the implicit claim that *as a rule*, it should retain the ability to monitor everyone in search of radical terrorists. Framed this way, I am inclined to think that what we are dealing with is rule utilitarianism, at least *prima facie*. The aim of the Patriot Act may very well be to protect the lives of the American people, but I argue that it carries with it the

¹⁹⁷ Jeremy Bentham and Laurence J. Lafleur *An Introduction to the Principles of Morals and Legislation* (Kitchener, Ontario: Batoche Books, 2000), 15.

¹⁹⁸ Mill, John Stewart. *Utilitarianism* (Kitchener, Ontario: Batoche Books. 2001), 6.

consequence of innocent Americans being monitored in a way that limits their autonomy. It denies the right to privacy of those it is supposed to protect.

Whether viewed as action or rule, one could say—as many do—that the consequences of the Patriot Act *does* promote the greatest degree of happiness or pleasure—or in this case, security—for the majority of those impacted. An advocate of this variety could take the stance that if her autonomy must be limited by monitoring her phone calls and internet traffic in order to gain protection from terrorist threat, so be it. Besides, she has nothing to hide, right? For this particular user, the ends justify the means.

In support of utilitarianism, Peter Singer offers a formulation that attempts to ameliorate both of the accounts previously mentioned. He suggests that when making any ethical decision, we must take ourselves out of the picture. We must consider it as applying to everyone collectively and, in so doing, we must never allow our specific individual desires to influence or intrude upon this process. “In accepting that ethical judgments must be made from a universal point of view, I am accepting that my own interests cannot, simply because they are my interests, count more than the interests of anyone else.”¹⁹⁹ Singer argues that whether we are looking at acts or rules, we must consider the consequences for those impacted *above and beyond* our motivation for their creation. Let us look at the issue from this perspective and see what comes about.

One could clearly speculate ulterior motives, but for the moment, I will grant that the singular motive behind the creation and implementation of the Patriot Act was to identify terrorist threats via telephonic and internet surveillance. Those involved in the creation and execution of the Patriot Act—the NSA and the U.S. federal government—enjoy the benefit not only of having unfettered access to all Americans’ tele/data communications and patterns of online conduct, but they also have the benefit of referring back to any specific data of their choosing as all that is monitored is stored. This is an actual consequence of the actions allowed by the Patriot Act. With this in mind, recall that the aim of the Patriot Act is to identify terrorist threats, and the method is mass surveillance of all persons in this country. The employment of this process certainly makes possible the identification of terrorists, for if

¹⁹⁹ Peter Singer, *Practical Ethics* (Cambridge, England: Cambridge University Press, 1979), 12.

you are watching everyone all the time, the chances that you will be able to locate the bad apple are good. Speaking literally, this is how bad apples are found. From this, we can correctly surmise that dragnet governmental surveillance can amount to the possibility of identifying terrorist threats, but what can we say of *actual* discovery?

On June 18, 2013, NSA Director General Keith Alexander testified before the U.S. House Select Intelligence Committee that governmental surveillance programs authorized by the Patriot Act “had helped prevent ‘potential terrorist events over 50 times since 9/11.’”²⁰⁰ Though by their very description, these events were characterized as being merely potential, their identification did, in fact, seem to be actual. On October 16, 2013, it was reported that Alexander would be stepping down as NSA Director. This likely came in the wake of Snowden’s exposing the agency’s indiscriminate sweeping surveillance of American’s telephone and internet data. It is also likely that Alexander’s resignation came as a result of his admission that the actual number of potential terrorist events was an over exaggeration.²⁰¹ Though the number of terrorist threats identified via governmental surveillance programs turned out to be lower than Alexander’s original declaration, we could grant that at least some degree of terrorist threat was actually identified. In making an argument for utility, however, we must consider the *entire* scope of consequence.

Besides the consequence of identifying terrorist threats, I have demonstrated another that comes in the form of widespread and indiscriminate surveillance of American’s telephone calls and their conduct online. Returning to the question concerning utilitarianism posed earlier, let us not think in terms of pain or pleasure, but rather in those of security vs. risk. I argue that ubiquitous governmental surveillance authorized by the Patriot Act does not follow an act model of utilitarianism. This is because the act does not promote a higher degree of security than is justified to eliminate risk of terrorist attack. We could imagine such adherence only if it were the case that once identified as a terrorist threat—by having

²⁰⁰ Ellen Nakashima, “Officials: Surveillance Programs Foiled More Than 50 Terrorist Plots,” *The Washington Post*, June 18, 2013, https://www.washingtonpost.com/world/national-security/officials-surveillance-programs-foiled-more-than-50-terrorist-plots/2013/06/18/d657cb56-d83e-11e2-9df4-895344c13c30_story.html.

²⁰¹ Live Leak, “Snoop Flies Coop: NSA Head to Quit After Lying, Failing to Explain Spy Overreach,” LiveLink.com, accessed June 23, 2020, https://www.liveleak.com/view?i=2b8_1382134733.

compelling reasons to believe so—surveillance was then implemented to gain further intelligence. Only surveillance of *known* terrorist threats would meet the necessary conditions of act utilitarianism. The individual act of surveillance would be permissible because the ends would justify the means.

Can we then say that governmental surveillance meets the conditions necessary to conform to the precedent of rule utilitarianism? Well, considering that the overarching and indiscriminate surveillance taking place as I type these very words does operate as a rule, we might be inclined to think so. But when we consider that all Americans—innocent or otherwise—as well as possible terrorist organizations are targeted, the methodology attracts more intuitive scrutiny. Surveillance on a scale this massive creates a situation in which the entire civilian population enjoys a disproportionately lower level of benefit than is promised by the means. Therefore, it is not clear that governmental surveillance can be justified under a rule model of utilitarianism. It is not clear that the level of security promised justifies the surrender of one's right to privacy.

Finally, consider that the monitoring of private affairs and especially the retention of collected data involves the unabashed denial of Americans' 4th Amendment right to be secure in their persons, houses, papers, and effects. Governmental monitoring, collection, and storage of telephone call transcriptions and internet traffic equates simply to illegal search and seizure of one's intellectual property. Considering this, it seems that even outside the scope of utilitarianism governmental surveillance entails a legitimate violation of rights that are supposed to be guaranteed by those laid out in the U.S. constitution. Whether it is viewed under a consequentialist lens or simply considered using general ethical reasoning, I argue that surveillance of this nature is both unwarranted and unjustified.

I have also suggested that surveillance of this nature involves a loss of autonomy suffered by anyone who uses a telephone or computer, which turns out to be a vast majority of persons in this country. Again, we can presume the objection will be made that if one has nothing to hide, then surveillance of this kind is of no consequence and, therefore, poses no threat to one's autonomy. I will, however, ask this brand of objector to consider the way she conducts herself in private as opposed to in public. Before a date, many try on a number of outfits in private for the sole purpose of selecting the only one they want to be seen in by their partner in public. Those who tremble in fear at the mere idea of singing a song in front

of an audience might do so emphatically in the shower alone. It is no secret that many people regularly “pleasure themselves” sexually on a regular basis and feel there should be no stigma attached to such a practice as it serves as a healthy method of satisfying one’s urges and relieves stress. Would such a person feel comfortable doing this in front of a group of NSA agents? I wager not. The fact is that there are any number of strange and normal things we do in private *because* we are in private. An actual consequence of the Patriot Act is that one has to consider that she is being monitored as she researches birth control methods, seeks out divorce lawyers, and diagnoses strange rashes online. These intimate affairs are ones I am inclined to think that most would wish to remain private, but the Patriot Act removes the possibility for privacy in such conduct and in so doing disallows the possibility of one’s retention of autonomy. In considering these autonomy limiting factors in conjunction with the utilitarian analysis provided above and the fact that this policy effectively authorizes unlawful search and seizure on a blindingly massive scale, I argue that the Patriot Act and its subsequent authorization of NSA spying on innocent civilians follows no principle of utility or morality whatsoever.

For those who cherish our constitutionally guaranteed right to privacy, much of what I have said here is troubling. Of those who contend that NSA surveillance is unproblematic in that they “have nothing to hide,” we might ask why they have blinds in their windows or doors on their bathrooms. We might ask if they are aware of the NSA’s surveillance of pornography viewing habits,²⁰² would they draw the same conclusion? In deciding how to respond to the implications of NSA surveillance, I offer the words of philosopher Robert Paul Wolff as cited by Singer:

The defining mark of the state is authority, the right to rule. The primary obligation of man is autonomy, the refusal to be ruled. It would seem, then, that there can be no resolution of the conflict between the autonomy of the individual and the putative authority of the state. Insofar as a man fulfills his obligation to make himself the author of his decisions, he will resist the state’s claim to have authority over him.²⁰³

²⁰² Glenn Greenwald, Ryan Grim, and Ryan Gallagher, “Top-Secret Document Reveals NSA Spied on Porn Habits as Part of Plan to Discredit ‘Radicalizers’,” *Huffington Post*, updated December 6, 2017, https://www.huffpost.com/entry/nsa-porn-muslims_n_4346128?1385526024=.

²⁰³ Singer, *Practical Ethics*, 293.

The point Wolff is making here is that inherently, the state and its people will always be at an impasse due simply to his declaration that the state demands authority and its citizens demand autonomy. What all of this really amounts to is *control*. Governmental surveillance is nothing more than the latest technological method to ensure that control of its citizens remain in the hand of the state. It is no secret that we civilians vastly outnumber the total amount of both police officers and military, yet government officials fear not any uprising or power shift of any kind. This is because shrewdly they have taken control by technological means to ensure that the teenagers will never throw a party because the parents will never leave town.

As far as the use of modern technology, however, I fear that the convictions expressed by Wolff have gone the way of the buffalo. In a society so infatuated with modern technology, its residents have become convinced—whether they know it or not—that unwavering adherence to the rules decreed by another are acceptable under any conditions, even when they remove the ability to live by those we might give ourselves.

I understand that much of this chapter comes across as some strange form of secondhand journalism, but I would like to remind the reader that much of my analysis is being conducted on largely uncharted philosophical territory. The methods of research imparted in this chapter, I feel, are relevant, and the fact that much of my source material comes with a hyperlink only serves to further my point. As users of modern technology, we have voluntarily succumbed to the allure of modern digital existence. It is unlikely that many users would even consider the possibility of being what I referred to in the beginning of the chapter as a mere citizen. There may be those rare few who refuse to participate, and to them I am more or less in accord. But for the masses—for that overwhelmingly disproportionate majority of persons who make the ritualistic use of modern technology requisite for their daily patterns of existence—there is no freedom from the bondage of corporate nor governmental surveillance.

CHAPTER 6

THE REASON FOR TECHNOLOGICAL AUTONOMY

When I have occasionally set myself to consider the different distractions of men, the pains and perils to which they expose themselves at court or in war, whence arise so many quarrels, passions, bold and often bad ventures, etc., I have discovered that all the unhappiness of men arises from one single fact, that they cannot stay quietly in their own chamber.

-Blaise Pascal, *Pensées*

Upon our arrival at the end of this study, it seems fitting to take a moment to look back at what has been discovered. In Chapter One, I established my claim that due to our obsession with and dependence upon modern technology, our autonomy becomes diminished and, as a result, modern technology becomes an oppressive force that is integrated into nearly every aspect of our lives. I showed that the distinguishing characteristic between antiquated and modern technology involves whether it operates primarily on human power or on that of some other force. I introduced what I believe to be evidence for the evolution of technology and showed that what fuels its advancement is an unwavering desire to innovate and improve its forms and processes.

Chapter Two highlighted the findings of Heidegger and Juenger regarding the essence of technology. We found that though their presentation differed, many of the claims made by both thinkers ran parallel. Perhaps the most important of their shared notions concerning technology is that it aims to well up and store elemental sources into standing reserve so that that which technology reveals will always be at our disposal.

In Chapter Three, I defined technology as those unseen powers and forces that both inherently explain the functions and drive forth the advancement of all inorganic contrivances and the thinking from which their creation and continued integration stems and gave a detailed analysis of how technology is able to act autonomously. I arrived at the

conclusion that it does so by synthesizing our genuine autonomy into an artificial form that it then employs to create dependence in us. The main claim throughout, though, was that it is we rational human beings who are responsible for what we mistakenly think technology *does* to us.

Following from this, Chapter Four showed how digital technologies such as social media networks operate as a high volume conduit for the dissemination of misogynistic ideology that stands to enforce the norms of patriarchal societal structure. We found here that this instance of technological oppression was like all others, self-imposed.

Finally in Chapter Five, I explored the many ways we as a society are monitored by both large corporations and our own government. It was discovered that on both accounts, surveillance operates as yet another form of control executed by modern technology but inspired and maintained by human beings. The end result again comes to be a surrender of our own autonomy so that we may have always at our fingertips what modern technology promises to deliver.

What then is the purpose of all this talk of autonomy? For what reason is it continually brought to the forefront of analysis and what does it have to do with a critique of technology? It seems that until faced with some obvious and discernable threat to it, most think little of their autonomy. When faced with anything from a delayed flight to the threat of imprisonment, we tend to react. We object and make a stand to preserve our ability to self-govern. My interest in the loss of autonomy as it relates to our use of modern technology is that when one really thinks about it, it is certainly a loss pernicious enough to warrant contestation, yet, it seems to go widely unnoticed. For those who promote and valorize the use of technology, the loss is regarded—at worst—a small price to pay. This is why I have made the claim that the resulting technological oppression is a self-imposed form of control. Through its adoption and uninterrupted use, we have become undeniably dependent upon modern technology. We have effectively forsaken our genuine autonomy in exchange for all it offers. The autonomy granted is synthesized into the artificial. Subsequently, modern technology turns against us employing our own surrendered autonomy as that which gives rise to its ability to control. Put simply, our autonomy serves as the fuel that keeps modern technology on its path of self-regulating advancement.

I have made the claim that what characterizes a given technology as modern is that it requires more than just human interaction to operate. It requires *power* in one of many varying forms such as electricity provided by battery, solar, or grid. Whether it be ethanol, diesel or propane, some modern technologies operate on fuel. Some of its earliest manifestations ran on steam. My point is that much like human and non-human animals, modern technology must always be *consuming* in order to function properly and survive. Strictly in terms of electro-mechanical function, these forms of power are necessary conditions for technology to do what it does. This is why Heidegger went to such great lengths to designate a standing reserve of energy sources as the *essence* of technology, but as we have found, there is another form of power that technology requires.

I have argued that unlike us, technology can never be a rational agent. Though all technologies have the ability to complete tasks—to be the doers of actions as active agents—this does not make them rational agents. Rationality is not an essential quality of any technology. Once granted autonomy by us, it can absolutely *function* by self-given rules, but it can never *live* by self-given rules. This was the heart of Juenger’s argument that no matter what degree of perfection technology achieves, it can never achieve *maturity*. Technology *is not* human.

We do, however, tend to assign many human characteristics to technology, both modern and antiquated. “The rake *stands* against the fence.” “The wristwatch *tells* time.” “My phone is about to *die*.” “The stereo *plays* music.” “The harp *sings*.” We believe that technology *evolves*, in fact, Ellul outright demanded it. The fact of the matter is simply that the monster behaves like the scientist because the scientist could not have made it any other way. Humans anthropomorphize technology because they cannot describe it in any other way. The thing that creates, develops, advances, and innovates is *us*.

More than a battery, a solar panel, a gallon of gasoline, or burning coal, what powers modern technology is human beings. Without us, the power sources themselves would not exist to provide the means for functionality in the first place. Human existence alone, however, is not enough; we must *do* something in order for technology to “come alive.” From the origin of technological creation, we had to employ the very special attribute of *rational agency* to become curious enough to rub two sticks together and see what happens. There seems to be a general dissatisfaction with a life lived devoid of innovation. As agents,

we must do things. As rational agents, we find it necessary to make things that do things, but just as any physical activity requires the expenditure of energy, the creation of the instrumental requires the expenditure our autonomy. The moment we implement something to do something for us marks the beginning of us no longer doing it. It marks the beginning of forgetting. If the steady employment of a machine that completes some task for us makes our completion of that task inessential, we can easily see the danger in the unwavering use of modern technologies that do the *thinking* for us.

This is the most crucial necessity upon which technology requires, demands, and implores us to keep in steady, interminable supply, in a word, *autonomy*. Without the remittance of our own autonomy, technology of any kind simply cannot be. Let me afford one last human attribute to technology by saying, how *lucky* it is. We humans are fundamentally driven to explore prolific and innovative ways simply to exist. We cannot be without creating!

Some say that reason is what separates us from the animals; of this, I cannot be sure. I would instead attribute the distinction between us and the beasts to that which our human-specific reason provokes us to do. We, unlike them, have a voracious compulsion to create, develop, and enhance. It is true that non-human animals such as chimpanzees and ravens use tools. Perhaps this indicates their emergence into the early stages of evolution we found ourselves at as cavemen, but that is not for me to argue. I will argue, though, that for the most part, non-human animals seem to be content without using technology. Whether this be a choice is as difficult a question to answer as is the one concerning whether they have reason. As stated in Chapter Three, none of this informs the project at hand. I only bring it up to point out the stunning peculiarity that among the millions of other species on this planet, we are the only one that is without question completely willing to give up its autonomy in order to enjoy the uncountable deliverables that come about via technological advancement.

Whether the sacrifice of our autonomy is worth that which technology provides is something for each to sort out for herself. I have gone to considerable lengths to solidify my claim that though cleverly disguised as a neutral, benign entity, modern technology operates as a brutally oppressive force that through human dependence, operates to weaken and undermine our rationality enough to regard autonomy as expendable. I have argued that our *technological thinking* both inspires the creation of modern technology and ignites its further

development in a twofold manner. It inspires what is created and what is created inspires it to continually advance the subsequent technologies.

Perhaps worth considering are steps we might take moving forward to reclaim our autonomy. There is, of course, an easy answer to this question. Stop using modern technology. This would, however, be an incredibly difficult endeavor and require extreme, adaptive measures. To that end, I can only suggest practical methods of cessation that I have found in my own experience to be helpful. Firstly, I do not find it necessary to have a smartphone. Everything that my work in academia requires of me can be done on a computer so the use of one that fits in my pocket is of no use to me. I do not find it necessary to engage in any form of social media. In terms of social interactions, personal, in-person ones have always seemed superior to me. I have found being untethered to the constant distractions that come with using a smartphone and interacting with social media have fostered a more present and sincere connection with friends and loved ones. If letting go of these forms of modern technology seem impossible, one might start small. Try simply leaving your home to go to the grocery store or for a walk in the park without your device. See how it feels. Notice what you notice. This could inspire longer periods of separation and lead to longer periods of independence. Also, read books on paper. There is no advantage I can see to reading from a screen. It is terrible for your eyes. Lastly, I would suggest conducting a complete overhaul of your data privacy. If you are going to be on the internet and have concerns, there are many steps that can be taken to block or at least mislead the eye of those who monitor your internet traffic.²⁰⁴ Though it is very possible to take these small steps and in doing so move closer to independence from the oppression that comes with technological interaction, I doubt many will take them for the many reasons I have already pointed out.

The very notion of technological oppression is, by its nature, controversial. To it, I am sure the reader can arrive at many objections—each of which I would be happy to address—but keep in mind the primary focus of this project. From the beginning, my mission has been to answer the question of whether technology can have autonomy, and if so, how could such a phenomenon be possible. I argue that I have provided significant evidence to prove not

²⁰⁴ For more on this, see Carey Parker, *Firewalls Don't Stop Dragons: A Step-By-Step Guide to Computer Security for Non-Techies* (New York: Apress, 2018).

only that it can, but also that it *does*. I have accomplished this through intensive study of claims made by other philosophers of technology and by exploring many relevant demonstrations of its occurrence. Most importantly, I have established that *the reason for technological autonomy* is reason itself. We, as rational beings, forsake our own genuine autonomy so that modern technology may operate in the many ways it does. We feed our machines in the hope that they will grow strong enough to do what we tell them but at the cost of our own freedom. In providing them with everything they need to operate autonomously, we become subject to the rules they establish by proxy. Our many levels of dependence upon what we have created is what has firmly established our *technical difficulties*.

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