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The Economic and Philosophic Manuscripts of Data

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This thesis "has been written against a background of both reckless optimism and reckless despair. It holds that Progress and Doom are two sides of the same model; that both are articles of superstition, not faith"

- Hannah Arendt, Origins of Totalitarianism, Meridian Books, 1951

Abstract:

Society is filled with words and images that elucidate the positive force radiating from technology entities. I push back against this imprecise and inaccurate narrative by breaking down the illusions created by surveillance capitalism. I argue that there exists a unique relationship between an individual and their environment in creating value, especially in the form of data. This relationship tears down the smokescreens prompted up by the surveillance state because it demonstrates the costs of technology and surveillance capitalism. I found that how data is created and made monetarily valuable has significant, adverse repercussions on the capability to flourish as a human being. The world is increasingly shaped by the digital economy incentivizing the collection of data, and consequently, beliefs about people as no different than commodities proliferate, damage on people's epistemic capacities continue, and deeply intimate costs are incurred in a person's personal life. I conclude by imagining a relevant alternative scenario to a surveillance state: blockchain technology. While the surveillance state is a totalizing and powerful system that operates discreetly, blockchain has the potential to be a solution to the extant problems of the surveillance state because blockchain technology can establish and facilitate trust in the digital in a way that is decentralized. As a result, people can fundamentally trust each other in a manner that is not dependent on the centralized data storages. In this thesis, I not only evaluate the history of the surveillance state, but I also look to the future by imagining how a different system of valuation has the potential to respect the digital identity of a person through a combined economic and philosophic lens.

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Section Zero:

Google's first slogan since the early 2000's, "Don't be evil" has evolved into, "And remember... don't be evil, and if you see something you think isn't right – speak up," the very last words of their Code of Conduct last updated on September 25, 2020.[1] Palantir, a company that creates software for people to handle data and extract statistical insights, says their "team is dedicated to working for the common good and doing what's right..."[2] Robinhood believes "everyone should have access to financial markets" and aims to "democratize finance for all."[3] Google, Palantir, and Robinhood are the epitome of what is considered as Capital T Tech as each of them were originally founded in Silicon Valley and represent the culture of technology startups. More than 90% of the search engine market goes through Google, demonstrating Google's dominance, while Alphabet, the parent company of Google, has over 100,000 employees, emphasizing Alphabet's size.[4] Palantir received investments from Peter Thiel, early investor in Facebook, and Robinhood, in the same vein, has the same investors as Facebook and Twitter: Andresson Horowitz, continuing the Silicon Valley legacy. Their slogans are representative of Tech Giants because each slogan does not just assume Tech Entities as carriers of the moral compass of humanity, but they assume Tech Entities control the direction of progress, especially when considering their reach in society. The beginning of the 21st Century was marked by the acceleration of technological progress, which was echoed when Obama's White House exclaimed how the digital was herald as the great and ultimate equalizer.[5] There were so

[1] "Google Code of Conduct." *Alphabet Investor Relations*, 25 Sept. 2020, abc.xyz/investor/other/google-code-of-conduct/.
[2] "Privacy & Civil Liberties Engineering." *Palantir*, www.palantir.com/pcl/.
[3] "Our Mission." *Robinhood*, robinhood.com/us/en/support/articles/our-mission/.
[4] Johnson, Joseph. "Number of Google Employees 2018." *Statista*, 8 Feb. 2021, www.statista.com/statistics/273744/number-of-full-time-google-employees/#:~:text=As%20Alphabet%2C%20the%20company%20employs,other%20temporary%20and%20internship%20positions.
[5] Kanevsky, Dimitri. "Technology Change as the Great Equalizer." *National Archives and Records Administration*, Obama White House, 7 May 2012, obamawhitehouse.archives.gov/blog/2012/05/07/technology-change-great-equalizer.

many possibilities with technology, the internet, and the cloud. The idea of the internet was exciting and looked bright. After all, we had the entire world accessible at our fingerprints, making it reasonable for people to see Capital T Tech as a force of positivity.

One can look at humanity's scientific discoveries, technological advancements, and even philosophical breakthroughs and reasonably conclude modern-day humans living in 2021 know and understand so much more about the world than our ancestors. We can edit our DNA and engineer our genome with CRISPR/Cas9 thanks to Emmanuelle Charpentier and Jennifer Doudna. A person can see the rain in Miami, despite being physically in Antarctica; speak to their significant other, who is at sea, in real-time; and listen to a concert that occurred 20 years ago in the past, in virtue of possessing technology. People are learning more at such a rapid pace, as the internet offers many benefits to education. Wolfram Alpha, an online-advanced calculator, and Khan Academy, a digital learning space for all things related to math are just two prime examples. Nothing can truly replace in-person teaching, but in light of COVID-19, there is even a greater need for digital learning. Even though digital learning is second-rate to in-person instruction, technology allows people to continue learning in (inevitable) moments when being present physically in a learning space is impossible. And we see the proliferation, changes, and transformation of philosophical thought in Karl Marx's dialectical materialism, Hannah Arendt's human condition, Jennifer Lackey's epistemic reparations, Amanda Fricker's testimonial injustice, or Michel Foucault's panopticon. There is no denying the spiritual wisdom that our ancestors had, but the internet fundamentally changed humanity's means of communication in a way that is incomparable. We can access most of the human history and the world that lays in the realm of people's imagination. The internet became all

channels of information media: radio, newspaper, word-of-mouth, television. All types of information were packaged to be presented on the internet. The word, 'incomparable' is a necessary for describing the change in communication because the internet truly made information abundant. Technology has allowed people to communicate with each other with speed, the defining nature of our increasingly technocratic world. Words, such as "fast," "instantaneous," and "rapid" are accurate adjectives for the status quo. Before technology in the form and shape of electronic devices, the individual had to go out into the world and search for their passions, needs, and desires. To attain knowledge, one had to close the physical distance between themselves and the source of knowledge. The individual had to go out into the world, beyond themselves to ultimately acquire information. Ishika had to attend a concert or visit a record store to listen to music. Elton must walk to the bookstore or drive to the library to see words in a book. In virtue of the required time for someone to visit a source of knowledge, such as a library, there was a certain slowness in acquiring knowledge for an individual. This society before the internet parallels Copernicus' model of the universe where the Earth and humanity was not in the center of the Universe. There is this sense where the self has to go beyond itself to fulfill or satisfy itself, which required a level of self-awareness. It is this physical progress in reaching one's interest in the world that demonstrates the slow speed inherent in consuming knowledge. With the advent of technology, we have stepped back into Ptolemy's model of the Universe where the Earth, and thus the person, is the center of human civilization. Now, information, interest, and desires are manifested in a digital form where virtual reality is created from the starting point of the person, the center of one's digital world. Interests and desires are streamlined directly into our hands. Music, literature, and information of and

about the world comes to the person in seconds. "Instantaneous" is the motto of this age because all information is ready to be consumed and accessed in a moment's notice. The digital reality is created around the individual in a fast manner, ensuring an elevated sense of importance for the person allowing the digital to become a space where people truly and authentically live.

The immaterial world is growing and becoming increasingly more valuable in relation to the physical world. Prior to the invention of smartphones and the internet, people could only transform the material. Expressions, movement, and development about and of human beings largely took place in the physical, three-dimensional world. Art typically took a physical form. Now, human beings are not constrained to just the physical as a person's existence and expressions can occupy the digital realm. The internet is a space for people to communicate with each other, create nuanced infrastructures that can't be felt by the sense of touch, and learn about the vastness of reality. Data is the new oil. The value of the immaterial is demonstrated by the biggest companies in the world: Alphabet, Tencent, and Facebook – all of which are technology conglomerates. Physical institutions that offer financial services are being replaced by blockchain technology and decentralized finance.[6] If we were to define the largest bank by market capitalization, the largest bank in the world is not JPMorgan Chase with a market capitalization of $470B or Bank of America with a market capitalization of $321B, each of which as a rich history spanning several generations – the largest bank is currently Bitcoin, a peer-to-peer electronic cash system created in 2009 by Satoshi Nakamoto, with a market capitalization of $1T as of 2021. Even

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[6] Lau, Darren, et al. *HOW TO DEFI*. 1st ed., Coin Gecko, 2020.

the art world is moving toward the digital. Through nonfungible tokens also known as "NFTs," digital artwork for the first time gives art creators and collectors proof of authenticity and ownership. Despite it being relatively young compared to the vastness of the art world, NFTs are booming and moving the art industry in a new direction. For example, Beeple, a digital artist who has posted their artwork online every day for the past 13.5 years, sold a single JPG file containing the first 5,000 days of the project for $69.3M making this piece the third-most expensive art piece from a living artist ever sold at auction.[7] Each of these industries emphasize in their own unique way the growing value of the immaterial and how the digital moves exponentially.

It's understandable why Tech Giants, the ushers of the greatest technological progress in human history so far, were seen as a positive force. They created something truly beautiful, an entirely new space for people to exist in, to create in, to add value in. Much has already been created in the digital, and people have gained utility from these creations such as Google's search engine, Amazon's one-day delivery, or Twitter's newsfeed. That being said, this current moment of time is considered relatively early in terms of the motion and progress of this digital space. There is so much waiting to be created in the realm of the digital, and it's nice because humans are naturally creative. For this reason, we can see the intertwined strings of positivity, progress, and Tech Giants. There is a space, founded by technology entities, that has completely evolved people's lived experiences in that people can create value from almost nothing in a place beyond the physical. Tech Giants deserve some recognition, because they brought forth the existence

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[7] Reyburn, Scott. "JPG File Sells for $69 Million, as 'NFT Mania' Gathers Pace." *The New York Times*, The New York Times, 11 Mar. 2021, www.nytimes.com/2021/03/11/arts/design/nft-auction-christies-beeple.html.

of the digital, and people rejoice in the existence of this tangible place beyond. Meredith Broussard said, "the early Internet was deeply groovy," "a place where idealistic young men and women thought they could redesign the rules of society."[8]

The possibilities that lay immanent within the digital is breath-taking, but violence is the prevailing ethos of the status quo, and technology is not exempt to the way power and violence manifest. While Tech Entities created something beautiful, the culture and practices of these entities were harmful and violent toward their users. Surveillance disproportionately harms particular groups of people in ways that enforce militarization and policing. The surveillance state, according to Henry Giroux, "turn[s] every relationship into an act of commerce to make all aspects of daily life subject to market forces under watchful eyes of both government and corporate regimes of surveillance."[9] People are regarded as an everlasting source of data which means the individual is passively allowing technology conglomerates to continue collecting their information. Not only do surveillance entities attempt to make people addicted to their social platforms by ruthlessly capturing people's attention, but they objectify the individual and quantify the person by extracting, controlling, manipulating, and predicting pieces of our humanity in sinister ways. Even though Tech Giants created a space where people can generate value in their lived experience of the digital, users have become a new reconfiguration of the lower class as people are seen as just sources of data. "The quantification of individuality," as said by

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[8] Thompson, Derek. "Tech Was Supposed to Be Society's Great Equalizer. What Happened?" *The Atlantic*, Atlantic Media Company, 1 Oct. 2018, www.theatlantic.com/technology/archive/2018/09/tech-was-supposed-to-be-societys-great-equalizer-what-happened/571660/.
[9] Giroux, Henry A. *Dangerous Thinking in the Age of the New Authoritarianism*. 1st ed., Routledge, *Taylor & Francis Group*, doi.org/10.4324/9781315635316 . **Note: I was able to see this on the preview section of google books and so I was not able to see the page number nor the specific chapter

Jessica Dai, has changed people's knowledge of the world and how they come to know the world. Technology has enabled significant change, but at what cost? What is the price we pay for inviting technology into our lives? Consider how knowledge is technologically disbursed among people through the lens of capitalist intentions. When an individual or entity such as a news organization such as CNN, Fox, All Gas No Brakes, conveys newsworthy information, they typically conduct this in a manner that increases engagement (number of clicks, minutes watched, shares, saves) because engagement positively correlates with profit, and profit tends to be the ultimate goal for these entities. As a result, knowledge of the world and how people come to knowledge is primarily based on "what sells," emphasizing how surveillance capitalism in the age of the digital distorts people's relationships to each other and knowledge. Technology, while innovative and revolutionary, is still subject to the prevailing power structures extant in the status quo demonstrating the importance of shedding light on the dark, hidden costs of technology's progress.

This philosophical thesis aims to discover the costs of technology and surveillance capitalism. The intention is to increase self-awareness regarding data. Section One explores the condition of the human being and the society that surrounds the individual, and in this exploration, we will find the materials needed to lay this essay's foundation. The first piece of material we'll collect is this idea that value and the creation of value are the closest connections to the condition of existing as a human being, while the second material is this understanding that the condition of the status quo is defined by surveillance capitalism – a marriage of state agencies and corporate tech companies that fundamentally rely on the

collection and movement of data, a manifestation of a person's ability to create value. Specifically, Section One defines surveillance capitalism and elucidate how it operates. These pieces – the comprehension of both the individual and society at large – act as one and lay the foundation for this thesis because both affect each other in a feedback loop. Everything people come to touch with, physically or not, can instantaneously become valuable – this is the condition of human existence. The objects of value one wills into existence, subsequently impresses back again on one's will – a constant cycle that mirrors recursion in computer science. Specifically, data and the structure of the internet are byproducts of human activities such as coding, engineering, brainstorming, and yet "the things that owe their existence exclusively to men nevertheless constantly condition their human makers."[10] By having a foundation laid where we comprehend how people are always both shaping and being shaped by what surrounds us, we can see how data became valuable, which in turn demonstrates the dangers of monetizing data.

Section Two makes clear the specific moral, epistemic, and personal costs incurred by technology and surveillance capitalism by answering the question, "What are the specific costs of this totalizing system?" This section is specifically a means for me to make clear the three dark costs incurred from technology. Surveillance capitalism, through a moral lens, dehumanizes the individual by reducing the person to an object of surveillance, just a source of information, and dismissing a person's humanity. Leydon-Hardy's epistemic infringement is a prime example of how byproducts of human activity, such as cultural and social norms of surveillance, can have a severe and brutal way of affecting the

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[10] Arendt, Hannah. "Chapter 1: The Human Condition." *The Human Condition*, [Chicago]: University of Chicago Press, 1958, p. 9.

human being – the surveillance state actively cuts off the resources one needs to trust their perceptual deliverances of reality as truthful, precise, and accurate. The data that is collected, studied, and traded are literal aspects of our personal self – these pieces of information are not just bytes of zero's and one's; they are pieces of our mind in virtue of holding true beliefs about ourselves. What is at stake is not just the objectification of a person nor the constant epistemic damage one receives; what is at stake is a critical element of a person's humanity: their mind. Pieces of our mind are lost, or rather they are stripped from us for the purpose of generating profit, demonstrating the enormous price we pay in using technology.

Section Three is significantly different from the other sections. The first two sections are descriptive interpretations of the status quo that aim to represent reality accurately and precisely for what it is presently, but in Section Three, I explore the possibilities of a future that is imaginable and possible – one that hopefully evokes movement and action for the new and unorthodox. This last section will focus on blockchain technology, and how it has the potential to become the solution to the dark costs of technology. Technology, such as a hammer or software program, possesses a diverse use case, and while it is true that it can be used to proliferate the ugly within our society, technology, which includes blockchain innovation, can be used for the beautiful. Section Three will introduce Satoshi Nakamoto to help demonstrate how trust and privacy can be reestablished in the digital space. It will ground these abstractions by highlighting real-world cases of human beings currently using their creativity to manifest the new. I aim to remind us that greatness is both possible and replicable as people are trying right now to

move past problems and make the future the present. The second purpose of this section is to warn of the possibility of tainting the new. While blockchain technology grants us the capability to establish trust and privacy, there is an inevitable cost we must pay, and to minimize this loss, we must apply the same critical lens to this new technology as we do with traditional technology conglomerates. Technology has been historically used to repress people, which means it wouldn't be surprising if blockchain technology did the same. Consequently, there is an extra level of significant in this present moment, because in virtue of still being in its seed stage on the way of becoming an oak tree, blockchain technology can be a technology for the people, despite overwhelming odds of the cooption of surveillance capitalism.

Section One:

Section One was very much inspired by Hannah Arendt's *The Human Condition* – it lays the foundation for this thesis by sharing with you implicitly Arendt's idea of people as conditioned beings insofar as people are always both shaping value and being shaped by the value in the environment that surrounds them. People and objects that come into existence with or without human intention automatically turn into a condition for another's existence when they come into contact. By having a foundation laid where we comprehend how people are shaped in relation to their environment and people, we can see more clearly who the individual is and how data becomes valuable. The purpose of Section One is to increase self-awareness regarding an individual's relationship to their data, which in turn demonstrates the dangers of monetizing data and surveillance capitalism.

Humans are a social species that are fundamentally dependent on others to flourish as one's sense of personhood, self, and existence is intimately connected to people outside oneself, according to feminist philosophy. The process of becoming a person relies on the relationships with others because a person's perception of themself is fundamentally based on how they think other people see them. The beliefs, cares, and words of people act as conditions that influence how we conceive ourselves. A person becomes a person through others as people "participate in the ongoing process of my self-constitution… the process by which a self is constituted, however that happens," according to Susan J. Brison.[11] There are two glaring examples of this social condition, this dependency on others to flourish as themselves. First, the incarceration system with its evil and violent practices makes clear how intrinsically social we are as people – when isolated from humanity and placed into solitary confinement, one's mental state significantly worsens, and their physical body deteriorates. Further, it is certain that human beings do not always possess the capability to take care of themselves. Historically speaking, women have been the primary caregivers for those that cannot take care of themselves, such as children and elderly people, which demonstrates how people are dependent on others for survival.[12] Our humanity is conditioned on the social relationships we have with other people as we impress onto others in the same manner others impress onto us.

In virtue of being a social being, the individual's value and capability to generate value exists within the context of the collective. A person has meaning and can create

[11] Brison, Susan J., et al. "PERSONAL IDENTITY AND RELATIONAL SELVES." *The Routledge Companion to Feminist Philosophy*, Routledge, Taylor & Francis Group, 2017, p. 226.
[12] Ibid., p. 219.

meaning because they live with, for, and through other people. The identity of a human being is filled with possibility because we possess the ability to create new value, information, and knowledge. People are naturally creative in that an individual through their creative shaping-power, can make their will tangible and real by impacting one's environment. At one moment of time, value did not exist, and in the next moment, value exists as a consequent a person's intention. Given the change in value, there is also a change in one's immediate surroundings. David Graeber in *Bullshit Jobs* says, "much of our sense of self, a being discrete from its surrounding environment, comes from the joyful realization that we can have predictable effects on that environment."[13] The sense of self for a human being is deeply rooted in generating value, because "a human being unable to have meaningful impact on the world ceases to exist."[14] Creating meaning is a natural activity for people because life is the constant process of value creation. It is as Graeber says, "the desire to create art is simply a manifestation of the urge to play as the exercise of freedom for its own sake as well. Freedom is our ability to make things up for the sake of being able to do so."[15] Karl Marx reinforces this point when he says, "the practical creation of an *objective world*, the *treatment* of inorganic nature, is proof that man is a conscious species-being, that is, a being which is related to its species as to its own essence or is related to itself as a species-being."[16] Who we are as people is based on the act of creation as creating is evidence of a person belonging to the human race. People, who see reality through a religious lens, say the ability to create is a divine power for value is a

[13] Graeber, David. "On the Misery of Not Being a Cause." *BULLSHIT JOBS: A THEORY*, Simon &Schuster, 2018, p. 113.
[14] Ibid., p. 84
[15] Ibid., p. 85
[16] "Economic and Philosophic Manuscripts (Selections)." *Selected Writings*, by Karl Marx and Lawrence Hugh Simon, Hackett, 1994, pp. 63–64.

purely human invention that originates from oneself. The human being is powerful, because the individual possesses the capability to inject value into reality as emphasized by the words of David Graeber and Karl Marx. The individual has power because they are the source and authority of value in the world. People can decide to make that which lacks utility, possess utility in and of itself – this is the creativity of the human being. Out of everything that is worthy to be considered as doubtful and, in a world, marked with uncertainty and black swans, the one thing that should never be doubted is the creativity of the individual. The human condition is fundamentally based on creativity as people can create something from almost nothing. People as social beings are defined by their value and capability to create value because every person has dignity.

There is a difference between the building blocks of the human being and the building blocks of any object, and so identifying the quality that separates a human being from an object is vitally important. The difference between a person and an object can be ascribed to the dignity of the human being, the necessary characteristic to be considered a person. Down to the microlevel structure, the human is the combination of different elements and compounds like inorganic matter – the hydrogen in paints and the electricity in lights are also key ingredients to the composition of an individual person. Inanimate objects are made up of the same substances as human, but just in different permutations, combinations, proportions, structures, etc. It is dignity that makes distinct a human being from an object. A person is valuable in and of themselves in virtue of being a human being. For Kant, every person possesses this characteristic of humanity for their lifetime; injustice exists if at any moment of a person's life, they lose their humanity in the eyes of

themselves, the next person, or society at large. For example, when a person is regarded as an insect or tool such as a cockroach or hammer, injustice occurs because their status as a human being is not respected and not recognized as being dignified in and of themselves. Our humanity is fundamentally relational insofar as a person's sense of self exists in relation to other people because an individual's existence and personhood is inherently dependent on other people. This means that when a person is not perceived as a person by themselves, the next person, or the overall collective, they are robbed of being considered as a human being. A person, in virtue of being dignified, is valuable and can generate value creatively. Power stems from the human being because the individual possesses the capability to inject value into the meaningless and make valuable what was once not valuable. Value's origin does not lie outside and utterly separate from the individual because a person's value, their dignity, is the condition of their humanity.

Before we go any further, we need to focus on a specific instance of generating value: labor. The generation of value acts as a large umbrella in that value can take many forms, shapes, and expressions, in which labor is an instance of value production in the form and shape of a commodity. Even though labor is an example of generating value, it is uniquely different from the general idea of value creation for labor is constrained, while generating value is continuous over a person's life. Labor, an expression and example of value generation, is constrained when a person is unhealthy because they are too sick to move their mind or body; when a person is unconscious because they lost the capability to be aware of the here and present in the now; when a person is disabled because they don't have the power to open a door; or when a person is tired because they have expended all

their energy in their previous moments of activity. Being unhealthy, unconscious, disabled, or tired are just four examples of labor constraints, which showcases how the production of value in the form of a commodity, a conventional norm in modern-day capitalist society, is severely limiting. The constraints on labor provide more than a sufficient reason to both honor and grieve for Marx's proletariat and working class of laborers. While the worker transfers meaning, value, and energy into the material, something outside the scope of one's being, there is a perverted alienation between the object of one's creation and oneself because the direction that guides the production of value does not originate from the laborer and one's object of creation is not owned and possessed by the person who made it. It is the capitalist who owns the means of production and possesses the fruits of a laborer's creation. The proletariat deserve to be honored because they are valuable in and of themselves and persevere through the dynamic struggles of generating value in a capitalist economy. At the same time, the working class is to be grieved because the capability to create loses its empowering element under the roof of a capitalist when it is reduced to the role of producing a commodity and subject to the arbitrary willpower of another. Value creation is not always empowering and beautiful as shown by the extant perversion of value creation that exists under capitalism. We needed to differentiate the overall concept of value creation from labor because it provides context on the uniqueness of data as an instance of value creation. Separating labor from creating value in general allows us to better visualize data's path in becoming valuable in a way that is fundamentally different from labor.

A product of humanity's ability to generate and create value is data, information concerning people and the world at large. One may have initially thought of traditional currency, such as the US Dollar to be the prime example instead of data, and reasonably so; the idea of money and the growth of value are connected at the hip. The invention of currency was extraordinary and provided value for people's lives because an individual with currency possessed the means to exchange goods and store wealth. Not only was there a simple way to find the equivalent value of CBD Oil Tinctures to that of a pair of Jordan 14 Basketball Shoes, but also an individual could hold an asset that maintained its value without physically decaying, such as cheese, tomatoes, or even cows. The connection between money and the creation of value flourishes because people collectively decided and consciously agreed to assign value to a particular object, such as a blue bill that has on it the face of a man that lived centuries ago. It was the people's power of begetting value that allowed for the use of an object to be an exchange and store of value. In this regard, currency can be seen as a social construction, who's existence is based on the collective beliefs of the community. However, money, in the same manner as labor, is also constrained. Even though money is a consequent of humanity's ability to create value, money is limited. Take for example the Federal Reserve: if the Federal Reserve, the private bank that controls the flow of the United States' financial structure, kept printing money, the increased supply of money that exists in the entire ecosystem would be worthless. There would be an infinite supply of money, but it would be severely limiting because the oversupply of money would decrease its purchasing power of goods and services – too much money at a certain point devalues its worth as a currency.

These constraints, among others that are outside the scope of this essay, demonstrate the uniqueness of data, because unlike money and labor, data is continuous and constant as one will always create information throughout their entire life. While one may have originally thought of money, we can't continuously print money just as we cannot labor throughout our lives, and yet we can generate data until we die. One might say that the generation of data is not continuous because we are limited by the amount of information we can store with existing energy and hard drives. Even though it is true our current data storage capabilities are limited, we have the option to delete our data providing more space and memory to store new information. Deletion, the removal of one's information from databases, significantly addresses this limitation, but the one person might respond by saying it is possible and highly likely that the rate of deleting data is slower than the rate of generating data, which would reinforce how storage acts as a limitation. This limitation is different from that of money and labor. Money is constrained, because if it is infinite, it becomes worthless, and labor is constrained because it is not infinite insofar as people cannot labor continuously throughout their life. Data is constrained by our storage capability, and yet data is different because storage as a limitation can change while the constraints of money and labor cannot change. We cannot change the fact that too much supply of a money decreases the demand for the currency ensuring it becomes invaluable during exchanges of goods and services. The inevitable decline in health is inevitable as there is no escaping this reality. Data is different. While data mirrors money and labor – two instances of value creation – in having at least one constraint, data's limitation can be changed and improved. People are currently both working on making batteries last longer and creating systems that store more information.

Even if our storage capability is limited, it still stands that people keep producing value until they die. It is possible for someone to record on a computer every single day their activities such as keeping track of the number of reps one does during physical exercise, because the number of bytes is miniscule, no different from zero bytes. In this example, the rate at which we create data and value is slow enough allowing people to continuously record themselves throughout their life without being inhibited by storage. That being said, the real world is not defined by this slowness as the creation of data is fast. This rate of information hurts our ability to store information as information overload is severe and problematic aspect of reality. This ability to store information, despite being connected, is distinct from the individual continuously creating value in the form of data points, the process of translating real-world events into numbers that exist on a database. Generating value is not constrained because we can always produce data, even if our ability to store it is weak.

As I've argued so far, the condition of humanity is the ability to create constantly – this is the power of the individual and the source of disempowerment for the individual. People are constantly manifesting value in the form of data points, the most valuable resource in the world surpassing oil in recent years. The influence of the internet is compounded by the proliferation of smartphones making data "abundant, ubiquitous and far more valuable. Whether you are going for a run, watching TV or even just sitting in traffic, virtually every activity creates a digital trace – more raw material for the data distilleries. As devices from watches to cars connect to the internet, the volume is

increasing: some estimate that a self-driving car will generate 100 gigabytes per second."[17] Data is valuable, in one sense, because data functions as a quantitative story of a person's life in virtue of translating the life of a human being into recorded observations. However, the relationship between monetary value and data has yet to be explicitly revealed in this essay. How is information, recorded by human beings about other human beings, valuable in the sense that it can be exchanged for money? The answer is directly connected to the insights one can learn from data and how these insights fuel the role of advertisements in facilitating commerce. Google, Facebook, and the remaining players in the tech industry receive immense amounts of data from their users which parallels how Israel is giving away data from their treasure trove of medical statistics in exchange for vaccines from Pfizer.[18] Curious people give Google their information which includes their fears, vulnerabilities, secrets, and even hopes by utilizing Google's search engine, while social media users freely provide content about their own life to social media platforms as a means "to build community and bring the world closer together."[19] Tech Giants, in possessing so much data, have a unique opportunity to learn information about their users and sell our data to people that would want personal details of our lives. Take the user that shared their photos of their children to Facebook's platform, purchased an opal grill on their friend's website, and searched for a vegetarian recipe dish every Sunday evening. Tech entities now know that this user has a particular interest in family, jewelry, and vegetarianism at a specific

[17] "The World's Most Valuable Resource Is No Longer Oil, but Data." *The Economist*, The Economist Newspaper, 6 May 2017, www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data.
[18] Estrin, Daniel. "Vaccines For Data: Israel's Pfizer Deal Drives Quick Rollout — And Privacy Worries." *NPR*, 31 Jan. 2021, text.npr.org/960819083.
[19] "FAQs." *Facebook Investor Relations*, investor.fb.com/resources/default.aspx#:~:text=Facebook%20Investor%20Relations%3F-,What%20is%20Facebook's%20mission%20statement%3F,express%20what%20matters%20to%20them.

time demonstrating how tech giants can learn about the nuanced aspects of their users' ever-changing identity.

Google, in the beginning days, was once in financial trouble insofar as they had an effective search engine but did not have a sustainable business model.[20] Even though Google created an algorithm that significantly helped people in sifting through large volumes of digital information, becoming the default tool for searching through the Internet, the first years of Google's existence was marked by a lack of cash flow and profit. 1999 and 2000 were unprofitable years for Google until the introduction of Google Adwords, which completely changed the game. Sitting on a goldmine of data generated by their users, Google decided to use this information, intimate details of a person's life, as a means to sell advertisements. It was at this moment when data became monetarily valuable. The ability to identify the right people, at the right time, with the right message is the ultimate struggle for any advertiser. Google and its massive wealth of data solved this problem by allowing advertisers to purchase the attention of a particular person or group with precision and accuracy. Advertisers didn't have to put much effort into finding their target audience as before because Google already found them, allowing advertisers direct access to users. A CBD store that uses Google Ads is able to put their advertisements on the smart devices of a specific person such as the soccer mom that likes crystals and cares about their health. Google has the capability to delineate between different types of people – the soccer mom that cares for crystals and health from the not soccer mom who does not care for crystals and health. And advertisers pay money to access data contained within

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[20] Google. Final Prospectus . U.S. Securities and Exchange Commission , 18 Aug. 2004, www.sec.gov/Archives/edgar/data/1288776/000119312504143377/d424b4.htm#toc59330_11., p. 3

Google's servers as a means to identify particular people in their targeted audience and place messages in front of those specific people at a particular time and place. Advertisers pay Google each time a user clicks on their ad which means that ads with a higher clickthrough rate are deemed more monetarily valuable. The players that constitute the advertisement industry have become Google's customers and source of income, while users of Google are more than just the means of producing information, they have become the embodied essence of the commodity as data is intimately attached to the person's selfhood.

In being the first mover to monetize data, Google determined the practices and customers of the tech industry which is reflected in how other companies such as Facebook have similar business models. Facebook, just like Google, generates a substantial amount of their revenue from advertising by displaying ad products on Facebook and their accompanying platforms such as Instagram and Messenger. Facebook's total revenue in millions was $85,965 for 2020 in which 97.9% came from advertising.[21] Google and Facebook's relationship has become more intimate insofar as both agreed to be in an alliance code-named, 'Jedi Blue,' with the intention to strengthen their programmatic advertising.[22] The partnership between Google and Facebook showcases the prevalent social norm of tech giants extracting data from people to profit.

The monetization of data signaled the emergence of surveillance capitalism, but it was 9/11 that carved surveillance capitalism into stone. Terrorists, in destroying the Twin

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[21] "Annual Report: Form 10-K." SEC Filings Details, *Facebook Investor Relations*, January 28, 2021, pp. 50, https://investor.fb.com/financials/sec-filings-details/default.aspx?FilingId=14646367.
[22] Wakabayashi, Daisuke, and Tiffany Hsu. "Behind a Secret Deal Between Google and Facebook." *The New York Times*, The New York Times, 17 Jan. 2021, www.nytimes.com/2021/01/17/technology/google-facebook-ad-deal-antitrust.html.

Towers, took the lives of several thousand human beings, while the response of politicians fundamentally changed life domestically and abroad inspiring fear within people. This change was fundamentally rooted in the United States obtaining an unwavering conviction to never let a tragedy of this magnitude and of this emotional intensity to happen again. Led by this ideology, the Bush administration took advantage of this fear by launching the 'War on Terror.' Policymakers decided to prioritize the security of threats as a means to prevent any risk of conflict and to maintain peace, reminiscent of the justification that led to the invasion of Iraq. 9/11 was an event of traumatic scale, and yet it is regarded as an opportunity to strengthen the surveillance state as the collection of data was regarded as necessary in the fight against terrorism and for the pursuit of profit. The Bush Administration delegated the function of gathering information, a sensitive and core function of government, to private tech companies creating Orwell's Big Brother, a synergy between business tycoons and policymakers. The passage of the Patriot Act in 2001 and the Freedom Act in 2015 specifically expanded the powers of surveillance by granting government and private agencies the capability to circumvent civil liberties. For example, through programs such as PRISM and XKEYSCORE, intimate relationships with data brokers, and the internet's dependence on the technological infrastructure built and controlled by the United States, the National Security Agency "can surveil almost every internet user around the world," dismissing any respect for one's privacy.[23,24] One shouldn't be surprised because the idea of exploiting a crisis for the cultivation of power is nothing new, which I will expand on below.

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[23] Véliz, Carissa. "Chapter Two: How Did We Get Here?" *Privacy Is Power: Why And How You Should Take Back Control Of Your Data*, Bantam Press, 2020, p. 33.
[24] Snowden, Edward. "Chapter 16: Tokyo." *Permanent Record*, Metropolitan Books, 2019.

Naomi Klein, in the *Shock Doctrine*, elucidates how capitalists traditionally use moments of large-scale shocks to purchase significant pieces of the state the same time people are still coming to terms with the state of events. The transfer of property from the public to the private, or "reforms" in the language of policymakers, usually takes the form of radical social and economic engineering such as the privatization of New Orleans' education system that was born out of the rebuilding efforts following Hurricane Katrina. Klein emphasizes how capitalism and its unfolding is fueled by disasters when she says that "the atmosphere of large-scale crisis provided the necessary pretext to overrule (permanently) the expressed wishes of voters and to hand the country to economic 'technocrats.'"[25] It is as if disasters aren't something capitalists yearn to prevent, but rather something that is desired. Disasters, and subsequent images of destruction don't trigger an empathetic response, but rather almost a joyous opportunity for the capitalist to satisfy their craving for profit, property, and power. If it is not already evident, 9/11 and the following responses reflected the modus operandi of capitalists – the conscious exploitation of moments of collective trauma. The transfer of public power to private manifested in different ways in the case of the disaster that resulted from 9/11. In one perspective, the government provided capital and supplied contracts to tech companies, so the government can attain a copy of the personal information of social media users and sustain help from tech giants in the efforts to actively prevent terrorism.

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[25] "Blank Is Beautiful: Three Decades of Erasing and Remaking the World." *The Shock Doctrine: The Rise of Disaster Capitalism*, by Naomi Klein, Metropolitan Books, 2014, p. 10.

However, contracts and capital have been historically used to exploit disasters, which does not precisely describe the flow from public to private in the context of the 9/11 disaster and the accompanying surveillance state. This flow is directly connected to information and data. There was once a time when personal information about the lives of individuals laid in the hands of people. If one wanted observations about others, one would typically have to ask people. This changed with the advent of technology and 9/11 because personal information which was confined within the grasp of the people was now being transferred into the hands of private actors. Personal information about the general public was brutally extracted by the practices installed by private agencies demonstrating this unique flow of public goods into private hands. Mass surveillance which meant the collection of recorded data on people ultimately became justified in the name of security from the government's point of view. But when one considers the interests of tech giants, one sees a different picture. Data for tech giants, while also being used in the fight against terrorism, was really a mechanism for profit because data was a source of capital, and in being interested in this source, tech giants had a unique incentive to collect and extract as much as possible which allowed surveillance capitalism to properly bloom. Armed with an understanding of surveillance capitalism's genealogy, you, the reader, can now more clearly see the societal circumstances that surround the individual within the United States. The key characteristic of surveillance capitalism was the lack of public awareness because information regarding the methods and practices of surveillance were intentionally withheld and not disclosed, but thanks to Edward Snowden and Glenn Greenwald, a whistleblower and journalist, the public could understand the extent of the surveillance state and its accompanying wide-reaching powers. It was Snowden's revelations that

painted an accurate picture of the normalization of mass surveillance, capitalist byproduct of 9/11 and the Patriot Act.

Power within the digital age is largely held by the surveillance, which takes two forms, a corporate form fueled by capitalist consumption and a government form powered by fear and its accompanying military industrial complex. While the individual has value and generates value, the surveillance state, the prevalent structure surrounding the individual, has completed threatened one's privacy. Shoshana Zuboff donned 'surveillance capitalists' as people who have direct access to a person's life insofar as they are certain about personal, intimate propositions of a single individual in virtue of collecting all flows of information. Surveillance capitalists know how long people are connected to the digital world and how people are consuming information. In just the instance of smart phones, almost nothing is off limits in terms of the information firms know about people. Surveillance entities collect demographics, such as age, gender, and medical conditions; real-time facts, such as precise physical location, current outfit, and timestamps; behavior patterns, such as what is clicked, how many times a person clicks something and when a person clicks; and much more.[26] Pieces of knowledge about people, true beliefs pertaining to one's identity, and facts about tangible behaviors within time-space are captured by corporations through the use of data, ensuring people have zero privacy or close to zero privacy. The underlying motive for surveillance capitalists' interest in people's data stems from their desire to make profit. In virtue of living in an information-based society where

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[26] Zuboff, Shoshana, "You Are Now Remotely Controlled: Surveillance capitalists control the science and the scientists, the secrets and the truth." *New York Times*, 24 Jan. 2020, https://www.nytimes.com/2020/01/24/opinion/sunday/surveillance-capitalism.html

data is more valuable than oil, people are vulnerable and exploited as sources of knowledge for profit.

Government surveillance is just as intrusive as corporate entities, because they buy knowledge from corporate entities in addition to having their own ways of acquiring information. The surveillance state has its tentacles in every form of communication, collecting an infinite amount of information. The National Security Agency (NSA) continuously hoards a wealth of digital information from geographical locations, emails, phone calls, messages, and much more. "In Virginia, a telecommunications consultant reported [in 2007], Verizon had set up a dedicated fiber-optic live running from New Jersey to Quantico, Va., home to a large military case, allowing government officials to gain access to all communications flowing through the carrier's operations center." [27] Consider how the Defense Intelligence Agency revealed that they purchased location data from surveillance entities without the consent of the people whose information is being collected. [28] More recently occurring on September 4, 2020, the Pentagon awarded Microsoft "a $10 billion JEDI military cloud computing contract." [29] The contract between the Pentagon and Microsoft can be understood in a vacuum where we isolate this event in this one moment of time, or we could see how this singular event is representative of a larger pattern. The scheme involves a strong union between government and tech corporations where the government justifies their actions by saying these relationships with

[27] Risen, James, and Eric Lichtblau. "How the U.S. Uses Technology to Mine More Data More Quickly." *The New York Times*, The New York Times, 9 June 2013, www.nytimes.com/2013/06/09/us/revelations-give-look-at-spy-agencys-wider-reach.html?pagewanted=all&ref=general&src=me&_r=1&.

[28] Savage, Charlie. "Intelligence Analysts Use U.S. Smartphone Location Data Without Warrants, Memo Says." *The New York Times*, The New York Times, 22 Jan. 2021, www.nytimes.com/2021/01/22/us/politics/dia-surveillance-data.html.

[29] Sandler, Rachel. "Pentagon Awards JEDI Contract To Microsoft-Again-In Blow To Amazon." *Forbes*, Forbes Magazine, 5 Sept. 2020, www.forbes.com/sites/rachelsandler/2020/09/04/pentagon-awards-jedi-contract-to-microsoft-again-in-blow-to-amazon/?sh=4cb3b253505f.

Tech Giants are a means to keep the peace and prevent violence. The extant surveillance state, while taking two forms, corporate and government, is in reality, a union and marriage between the two. The US government provides business to data brokers by buying information collected on people and providing contracts for technology firms. For example, tech companies such as Microsoft and Palantir earn a large share of their revenue by working with Immigration and Customs Enforcement, the government organization responsible for separating families. Being spied on has become normalized for the sake of "national security," and tax dollars from the people are being transferred to technology on a regular basis. The loss of privacy is justified by a culture of fear perpetuated by the potential threat of terrorism and violence, at large.[30] As a means to promote public safety, the government just like surveillance capitalists have the ability to become certain of any personal information of a person's life ensuring people live with zero privacy.

The surveillance state extracts, scrutinizes, and manipulates people's data, a manifestation of value as a means, ultimately, to predict the future behavior of a person, attract more users on their platform, and trade information for profit. We see this movement and transformation of data in the surveillance state, specifically in the field of data science, the tools aimed at understanding data with the intention of making informed decisions. Surveillance entities first extract data ruthlessly. Corporate executives do their best to capture a person's scarce attention, evident in their attempts to make people addicted to their social platforms. Surveillance capitalists have borrowed tactics and strategies directly from the casino rulebook to get hooked on a personalized, digital world filled with

[30] Giroux, Henry A. "Totalitarian Paranoia in the Post-Orwellian Surveillance State." *Cultural Studies*, vol. 29, no. 2, 2014, pp. 108–140., doi:10.1080/09502386.2014.917118.

spectacles that demand one's attention.[31] For example, on any mobile, social media platform – Twitter, Instagram, Facebook – the refresh button commands the app to process content most recently uploaded by users. The interesting element is the mystery of what content is uploaded. This uncertainty encourages addiction and was directly taken from the design of slot machines at casinos. The rush from pulling the lever on the slot machine and seeing the new content on your timeline is the same affective feeling you get when you pull down your timeline to see what's new. These features play games with the brain's chemicals such as dopamine and serotonin, fundamentally altering the brain chemistry of an individual.[32] The norms of surveillance capitalism "manipulate subliminal cues, psychologically target communications, impose default architectures, trigger social comparison dynamics, and levy rewards and punishments." [33] This is eerie because data is a form of value that is intimately connected to the human condition, and yet surveillance entities extract value, our humanity, from us brutally. Once the data is imported into a form that is readable for both a computer and other humans, data scientists do their best to understand what the data is telling them. Scrutinization of data and of value of people often means picking out the most important aspects of the dataset and transforming a piece of a person's humanity into visualizations. They aesthetically display data on a place or graph to better make sense what knowledge a dataset contains. Data is interesting because each data point has the potential to reveal a story about a person's life, and yet there is still an abstract element to it. A person's name is valuable, and one can erase this aspect of one's

[31] Price, Catherine, "Trapped – the secret ways social media is built to be addictive (and what you can do to fight back)." *Sciencefocus.com*, 29 Oct. 2018, https://www.sciencefocus.com/future-technology/trapped-the-secret-ways-social-media-is-built-to-be-addictive-and-what-you-can-do-to-fight-back/

[32] Ibid.

[33] Santani, Sumeet, "Why Data is the New Oil." *Syracuse University: School of Information Studies*, 26 Feb. 2018, https://ischool.syr.edu/why-data-is-the-new-oil/

humanity by simply replacing a person's name with a number instead. Data has this contradictory characteristic insofar as data is both unique, a story of a person's humanity, and abstract, something that can be separated from any one person. Data is an intimate aspect of a person's life, and yet it can be completely divorced from the person. Furthermore, it is by manipulating the historical data of people can tech giants build mathematical models to predict future events. In conjunction with this predictive use case for data, the information used acts as a commodity, an object to be sold within the digital economy. The movement of data depends on the exchange for monetary value and extraction of insights from the numbers. Data is important because it ensures the profitability of advertisement companies. Facebook and Google don't generate revenue by collecting data or providing a platform on the internet, their profits directly come from people that want to display ads. Advertisers are charged by how many people click on their ad campaign. This is the data economy ~ the person's data is ultimately being used to make accurate predictions and turn a profit. By detailing out the process of how data moves, it is easier to see the darkness of technology. This process brings to the surface how the surveillance state captures our value and humanity for free, exploiting our ability to create and thus directly impacting how people come to knowledge in the age of the digital.

The first words of Veliz's *Privacy is Power*: "They are watching us. They know I'm writing these words. They know you are reading them. Governments and hundreds of corporations are spying on you and me, and everyone we know. Every minute of every day. They track and record all they can: our location, our communications, our internet searches, our biometric information, our social relations, our purchases, and much more.

They want to know who we are, what we think, where we hurt. They want to predict and influence our behavior. They have too much power. Their power stems from us, from you, from your data."[34] Even though surveillance entities want our data to create better algorithms for more accurate predictions and to generate profit, the underlying reasons for continued surveillance on people is to capture and maintain control value, pieces of humanity. This is why surveillance entities wish to keep this form of power. We are extremely valuable, but by having power over our data, the surveillance state flourishes. This same power dynamic is reflected in the most critical issues of the status quo – "labor and capital; warmaking and American imperialism; gender, race, and politics" – demonstrating how technology is not exempt to the way power takes shape and oppresses people.[35] Surveillance entities, from government agencies to corporate firms, want to know our data, because knowledge of a person's data is how surveillance agents maintain power. The power of the individual and of the people lays in having value immanent from within and the capability to generate value, but the norm for the current age is this devaluation of a person's worth. When we don't control and own our data and our humanity, we actively deny the value and creative nature within ourselves, implicitly allowing the belief that the individual is not powerful to circulate throughout society. The reason private and public institutions have wide and far-reaching powers and are considered extremely valuable stems from the fact they control the entire treasure trove of wealth and data that flows out of human beings. One's digital footprint is the most valuable thing in the world because it comes from a dignified being. The remnants from our shoe and the ground we stepped on

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[34] Véliz, Carissa. "Introduction." *Privacy Is Power: Why And How You Should Take Back Control Of Your Data*, Bantam Press, 2020, p. 6.
[35] Dai, Jessica. "THE PARADOX OF SOCIALLY RESPONSIBLE COMPUTING: The Limits and Potential of Teaching Tech Ethics." *The College Hill Independent*, 3 Dec. 2020, www.theindy.org/2235.

becomes valuable. Anything from the digital world that is touched by the force of a person's consciousness becomes the gold that started California's 1849's Gold Rush look miniscule.

Section Two:

Introduction

The purpose of my thesis is to break the illusion of good tech. My thesis states that while there are particular benefits of technology, there are greater philosophical costs to the proliferation of technology. In virtue of laying the roots of the surveillance state and normalizing the constant and continuous collection of information, tech giants wrong and inflict harm on their users. Section Two seeks to build on the foundation laid by Section One and to make clear the details the moral, epistemic, and personal costs of surveillance capitalism.

On the moral cost of technological progress

Humanity has accrued three hidden costs as a result of the transition into the technological age, and the first of which lies in the realm of morality. The moral harm of the surveillance state is what Rima Basu calls doxastic wronging, the idea that beliefs can be a source of moral, doxastic harm.[36] Beliefs are an essential means for a person to navigate through both the spatial and social world. Just as beliefs of astronomy and physics help ships traverse the sea, beliefs regarding people and their humanity assist people in social interactions. For example, if Jacob believes neither that Peaches is a good person nor has good intentions, then Jacob uses this belief in dealing with Peaches' presence. Jacob is

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[36] Basu, Rima "A Tale of Two Doctrines: Moral Encroachment and Doxastic Wronging." *Claremont McKenna College*

understood as being committed to the status of Peaches as not a good person with good intentions, demonstrating how the content upheld is one's perspective on another person's status in the world.[37] Beliefs require moral considerations in virtue of facilitating interpersonal relations, and when we fail to regard people in the right way because every person participating, consensually or non-consensually, in the data economy is considered an endless source of data and is not perceived as a human being. The groups of people categorized as surveillance capitalists believe people to be commodities, no different than oil, natural gas, or corn; they believe people to be just a means of production for profit and knowledge. This is the Kantian critique: surveillance capitalists use people merely as a means, not respecting that people – the suppliers of data – are ends in themselves.

Before the age of data and information, people created physical goods from the raw materials of the earth. We transformed the lemon into lemonade, for instance. Alienation, in the age of the physical, occurred when the creator is separated from the object they created. By indicating how labor is an essential element of a person's humanity, Marx demonstrates the perverted work conditions. Capitalism ensures the laborer is not only alienated from the product that required their time, life energy and movement to exist, but also alienated from themselves insofar as one's shaping power, one of the most basic human capabilities, becomes under the control of another. The surveillance state has evolved this situation because people have become the commodities, which is a failure to be regarded in the right way. Marx delineates between a creator and their object of creation, but the digital blurred the boundary between creator and object of creation by turning the

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[37] Ibid., p. 8

two into one. The person is simultaneously both, because in the digital age, the commodity is the human being. The individual creates data, but the data, information about the life of an individual, is intimately connected to the dignity of the human being, the condition of one's humanity. Data is life translated into numbers through recorded observations, and under the surveillance state, the person is reduced to just pieces of data to be deciphered and learned from, because tech executives hold the belief that people are vehicles to acquire data. The surveillance state regards people in the wrong way, because they believe people are a means to gain information, which casts aside people's 'humanness'. Humanity is much more than just information and facts about a person. Even if there was a perfect record of all the content and activities that occurred in one's life, such as the number of breathers one took in a given period, the number of steps one walked, the written secrets contained in one's journal, and every other (in)significant fact about one's life, this perfect record is still missing a crucial element of the collective, the dignity of the individual. Surveillance capitalism takes away a person's dignity by committing doxastic wronging and reducing the person to pieces of information that lay in belief and thought. It is particularly harmful and even violent when one's belief about another is a failure for the other person to be seen in the right way.

Doxastic wronging possesses three hallmark features: "(1) doxastic wrongs are directed, (2) doxastic wrongs are committed by beliefs rather than the consequences of acting on a belief, and (2) doxastic wrongs are wrongs in virtue of the content of what is believed."[38] Consider the words Mark Zuckerberg said during an award speech in 2010,

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[38] Ibid., p. 8

"people have really gotten comfortable not only sharing more information – and different kinds – but more openly with more people. And that social norm is just something that's evolved over time. We view it as our role in the system to constantly be kind of innovating and updating what our system is to reflect what the current social norms are"[39] The evolution that Zuckerberg speaks about is deeply rooted in privacy and its strong link with surveillance capitalism.

According to Zuckerberg, before the age of technology, people were more careful with disclosing information since privacy was important, but this sentiment has apparently evolved into something it was previously not insofar as today, there is this proliferating belief that people do not value privacy as much anyone as demonstrated by his words. People are more comfortable in openly sharing more intimate aspects of their life with more people, said Mark Zuckerberg. Privacy and sharing more are zero sum. The word, "more," in virtue of being the only word repeated (three times), is worthy of consideration because here Zuckerberg is stating Facebook's want for more information, more openness, and more people. Facebook's drive for more has transformed the social norm of privacy in such a way that privacy is considered neither to be necessary nor desired, according to the prominent tech executive. Facebook's belief in people being comfortable and open to sharing information can be seen being recently endorsed in their legal situation stemming from Cambridge Analytica in 2019. Through their lawyers, Facebook argued that "there is no privacy interest, because by sharing with a hundred friends on a social media platform, which is an affirmative social act to publish, to disclose, to share ostensibly private

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[39] Zuckerberg, Mark. "Facebook CEO Mark Zuckerberg TechCrunch Interview At The 2010 Crunchies." *YouTube*, Zennie62 Oakland News Now Daily Commentary Live, 2010, min. 3:15–3:35, www.youtube.com/watch?v=LoWKGBloMsU.

information with a hundred people, you have just… negated any reasonable expectation of privacy."[40] It becomes clear how Facebook's belief regarding their users demonstrates the hallmarks of doxastic wronging.

The first hallmark of doxastic wronging emphasizes the harm that occurs when beliefs are directed at people in the wrong way. Here, 'we are at the greatest risk of wronging' because how we treat people in thought plays an essential role in the flourishing of the other individual.[41] The foundation for Basu's argument stems from Kant's categorical imperative which states "that our way of relating to people is categorically different from our way of relating to objects."[42] It is by regarding others as people can people truly flourish as human beings. The surveillance state, more than just representing human beings as objects, objectifies the human being by relating the individual to a thing that will eventually be deciphered and traded. By implying people do not value privacy anymore, Zuckerberg conceives users as just sources of precious resources. Instead of oil reserves hidden in the depths of earth's cracks, the person is represented as just a pool of knowledge, and ultimately, as an object. Social media users have a justified criticism because their dignity is not protected when Facebook represents their users to that of objects.

Being seen and related to as a source of knowledge is made worse by government surveillance. Giroux says, "the political identity of citizens within a democracy in the presence of the new digital technologies with optical scanners that are capable of reducing

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[40] Warzel, Charlie. "Facebook Under Oath: You Have No Expectation of Privacy." *The New York Times*, The New York Times, 18 June 2019, www.nytimes.com/2019/06/18/opinion/facebook-court-privacy.html.
[41] Basu, Rima "A Tale of Two Doctrines: Moral Encroachment and Doxastic Wronging." *Claremont McKenna College*, p. 9
[42] Ibid.

everybody to mere physical objects of state control."[43] While people must forfeit a certain amount of freedom in order to live in society, the relinquishing of privacy absolutely hurts and prohibits the flourishing of civil liberties in a way that is fundamentally different than giving up a small portion of one's freedom. The individual without privacy allows the state's power to significant increase, helping the state flirt with totalitarianism and authoritarianism. The government sees individuals as threats to civil society, and the only way to prevent these threats is to collect the most amount of data we can on the perceived threats. The dominant power structures that reduce the person to an object by collecting one's private information are justified for the sake or promoting public safety and preventing terrorism. Surveillance, in a guise to maintain peace, really promotes a culture of fear where being watched is both acceptable and necessary to deter violence, and as a result, people are perceived as potential threats and objects of information needed to bolster the security measures of the surveillance state. The idea of doxastic wronging is emphasized by Foucault, who argues that existing under this type of surveillance equates to living, existing, and being regarded as a criminal within a prison system, making it transparent how the state's belief is directed at their citizens.[44] The post 9/11 world, marked by the war on terrorism, has fundamentally transformed every social space of communication into a war zone, in which every person participating in society is a suspect.[45]

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[43] Giroux, Henry A. "Totalitarian Paranoia in the Post-Orwellian Surveillance State." *Cultural Studies*, vol. 29, no. 2, 2014, pp. 118., doi:10.1080/09502386.2014.917118.

[44] Felluga, Dino. "Modules on Foucault: On Panoptic and Carceral Society." Introduction Guide to Critical Theory. January 11, 2011. Purdue U. May 2, 2021. https://cla.purdue.edu/academic/english/theory/newhistoricism/modules/foucaultcarceral.html

[45] Giroux, Henry A. "Totalitarian Paranoia in the Post-Orwellian Surveillance State." *Cultural Studies*, vol. 29, no. 2, 2014, pp. 119., doi:10.1080/09502386.2014.917118.

Even though there are material wrongs that stem from the consequences of acting on the belief that people are commodities – this is not characteristic of doxastic wronging, because doxastic wronging entails the commitment to a belief, that the person's belief aligns with truth. The second hallmark of doxastic wronging, in the instance of the surveillance state and inspired from Basu, is this strong commitment by those, who hold the levers of power, to the idea that truth entails a conception of people as just sources of data waiting to be extracted, a means rather than as ends-in-themselves. Surveillance capitalists believe it to be true that people are no different than commodities. It is the synergy between the representation of a person and the commitment of that representation as truth that "constitutes a wrong in the belief itself" under the surveillance state.[46] While beliefs establish a relationship between the bearers of belief to the commitment of truth, beliefs are also composed of representational content. The third hallmark of doxastic wronging in the surveillance state centers on the representational content of users and providers of data. It is the virtue of possessing representational content of a person that demonstrate how beliefs are inherently connected to morality. Zuckerberg's words represent users as standing in particular relation to the properties tech giants attribute to users. Facebook's belief about people relates users to attributes like that of an object. The image conjured up by surveillance capitalists, a digital representation of a human being, is an image that deserves a legitimate complaint because the image does not attribute the difference between object and person. This difference is important because identifying this distinction is critical in respecting and protecting the dignity of the person. People as social beings need other people for respect, which occurs in word, action, and thought. For

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[46] Basu, Rima "A Tale of Two Doctrines: Moral Encroachment and Doxastic Wronging." *Claremont McKenna College*, p. 9

someone to live a life as a human, they need to be seen and represented as a human being first, which starts in mind and belief of another. Human beings possess the capability to harming others solely on the thoughts one holds about another. The surveillance capitalist dehumanizes the individual by having a mental representation of a person that does not paint the difference between person and object. The content meant to represent the person makes invisible the qualitative story and the human element of the individual. The thoughts of surveillance capitalists contain unjust conception of users, showcasing the existence of doxastic wronging, the moral cost that has accompanied the rise of technology.

On the epistemic cost of technological progress

Act One

The purpose of this section of my thesis is to showcase the epistemic cost of technological movement. Previous sections have discussed various accounts of the self for a human being, but for the purposes of this section, we'll focus on Lauren Leydon-Hardy's deep self-account of epistemic agency. Leydon-Hardy's understanding of the deep self allows us to recognize the epistemic cost incurred from surveillance capitalism. I want to demonstrate how culture and norms upheld by the surveillance capitalism actively damages one's capability to know the world. And to best communicate my message, this section will come in three acts. The first act will elucidate Leydon-Hardy's conception of the deep self and foreshadow the interesting relationship between the deep self and technology. Act Two will delineate epistemic infringement, and Act Three serve as a vehicle for me to convey the epistemic cost incurred by technological motion.

Leydon-Hardy, in drawing inspiration from Sripada, states how there exists an underlying subset of elements, among a wider scope of desires and attitudes, that act as the fundamental foundation for a person's concept of self.[47] The deep self of a person is composed of a collection of pro-attitudes called cares, "mental states distinguished from other mental states like beliefs, or desires, by their characteristic functional role, a syndrome of dispositional effects that includes motivational, commitmental, evaluative, and affective elements."[48] These cares are motivational in that they are a source of action that lays immanent within a person; they are commitmental in the sense that the individual desires from within to continue caring about the people, objects, and places they have already placed their care; cares are evaluative because the object of our care can influence how we come to conclusions; and our cares are affective as there is a relationship between realizing one's cares and one's emotions. Emotions, key elements to the experience of being human, have a way to act as a filer in which a person comes to certain conclusions. A person can evaluate pieces of evidence when they are happy and come to one conclusion, while at the same time, this same person when judging the same pieces of evidence but in an angry state of mind can come to a completely different conclusion. Belief formation is dependent on one's emotions, which are easily triggered by a person's cares. The dispositional effect of a person's subset of 'cares' demonstrates how a person's cares can bridge together a person's belief-forming mechanism to the person themselves. What a person cares about is intimately linked to who they are and how they come to beliefs about the world.

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[47] Leydon-Hardy, Lauren, "Epistemic Agency and the Deep Self." Amherst College.
[48] Sripada, Chandra. "Self-Expression: a Deep Self Theory of Moral Responsibility." *Philosophical Studies*, vol. 173, no. 5, 2015, pp. 7., doi:10.1007/s11098-015-0527-9.

One particular quality of a person's set of cares is how the social determines what one cares about insofar as our belief forming mechanism is a function of the social. What we care about is socially constructed based on the extant societal conditions. It is interesting to note how social interactions have evolved to include the digital. The exchange of meaning and information that once existed only in the physical either face-to-face or on paper, now extends into the internet, which has allowed for the existence of a global village defined by fast communication that occurs with ease. The advancement of technology has allowed people the opportunity to use the internet as a means to come to certain beliefs about the world. This is important because the tech entities, who control web platforms and protocols such as Twitter or https, dictate social interactions that are critical for a person's journey to judgement. Tech companies have a direct pathway in affecting the belief-forming mechanism for an individual because they drive social norms and values. The set of cares one has aids in the process of creating value, and yet it remains how exactly big tech impacts one's belief-forming mechanism.

Act Two

Self-trust is defined as this intimate trust that one's perceptual deliverances are accurate and precise, and when a person does not trust themselves, they are considered epistemically unhealthy. This means a person is considered epistemically healthy if they can make their own judgements seriously and if they have the resources to make their beliefs correspond to a correct representation of reality.[49] The epistemic cost of technological progress is this damage to a user's epistemic capacities – the user's process

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[49] Leydon-Hardy, Lauren, "Epistemic Agency and the Deep Self." Amherst College.

of forming beliefs has been orchestrated and limited in a manner where one's epistemic capacity has been wrecked. The cultural norms that the user takes to the tech entity and the social values one had as preconceived notions structure the way a user understands evidence in a way that one is not confident with their inferences and feelings drawn from the evidence. The result is one where the individual cannot turn inward and trust themselves in making accurate judgements because it is hard for the user to have confidence in the accuracy of one's perception and memories. The erosion of one's epistemic capabilities that occurs in social environments is what Leydon-hardy identifies as epistemic infringement.

Consider the person who starts using a smart device which is constantly being connected to the Internet. Unbeknownst to the user, the tech companies that exist between the smart device and the Internet, such as Apple, Verizon, Facebook, and Google have a diabolical intention: to steal and loot data, an intimate and valuable aspect of a person's self. For example, TVs can send signals unencrypted letting tech entities know when and what you are watching, while our phones can still track our location even when location tracking is turned off.[50, 51] With access intimate details of their user, tech entities in the status quo can accelerate their conquest for more information and data. The surveillance state is fueled by the desire to profit in that this drive aims to extract as much value as possible for the longest amount of time possible. Tech companies do their best to sustain

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[50] Scheel, Rafael. "Smart TV Hacking (Oneconsult Talk at EBU Medica Cyber Security Seminar)." *YouTube*, Oneconsult AG, 2017, Description: "In a presentation to the European Broadcasting Union (EBU) Rafael Scheel (Senior Penetration Tester & Security Researcher at Oneconsult AG) gives an introduction to IoT cyber security and shows a live hacking demo an attack which allows to remotely takeover bulk smart TVs over the TV stream signal. About 90% of the TVS sold in the last years are potential victims of similar attacks. https://www.oneconsult.com/en/. UPDATE: The DVB Steering Board has approved updates to the technical specifications to prevent man-in-the-middle attacks…" https://www.youtube.com/watch?v=bOJ_8QHX6OA
[51] Day, Andrea, and Jennifer Schlesinger. "How GPS Can Track You, Even When You Turn It Off." *CNBC*, CNBC, 14 July 2018, www.cnbc.com/2018/07/13/gps-can-spy-on-you-even-when-you-turn-it-off.html.

their competitive advantage, and as a result, no one, including the users, can know of the surveillance practices and processes that place the individual's personal information into the hands of tech giants. Maintaining secrecy and discreetness about the collection of data is the upmost priority of surveillance capitalists because this is how they benefit and cultivate power. The lack of awareness, fueled by values of profit and capital, allows surveillance to be unchallenged and unthreatened. In order to keep people from becoming aware, tech entities have created an agenda based on profit, filled with societal norms, and centered around manipulating their users. Users, after being subject to immense amounts of manipulations, experience a profound sense of loss where the individual is missing a crucial element of their essence. The manipulation conducted by the surveillance state has damaged one's capability to know the world ~ this damage is, as Leydon-Hardy says, "a loss of intellectual self-trust in her."[52]

Act Three

      There are at least two parties involved in cases of epistemic infringement – a perpetrator and victim or in the context of surveillance, the surveillance state and users of technology. The surveillance state, or the perpetrator, utilizes commonly accepted norms to convince users that their perceptions of reality are untrustworthy and not sound. Three central elements are required for a valid understanding of epistemic infringement, according to Leydon-Hardy. First, epistemic infringement is relational, existing between two people. I will, for argumentative sake, perceive agents of surveillance as "people." Even though there are fundamental differences between a surveillance firm and a person

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[52] Ibid., p. 7.

(as there should be), there is much merit in assuming the opposite. Firms, in this instance, will be equated to people because perceiving surveillance entities as people is necessary to represent the status quo norms most precisely. Legal codes, as a result of various political changes intertwined with big business, has dictated firms to be regarded as people. When the United States Constitution declares, "We the People," people also mean corporations and not just human beings.[53] The surveillance state and the entities serving surveillance should also be included because they are, at their root, a group of people working toward a specific agenda. Thus, the surveillance state meets the first criteria of epistemic infringement in being relational at heart between the surveillance state and the users. Second, epistemic infringement is systemic in that acts of epistemic harm stemming from surveillance do not exist in a singular moment or vacuum because acts of epistemic harm occur frequently over time. A person comes to lose the necessary resources to be epistemic healthy overtime because of the prolonged duration the person is situated within the surveillance state. Lastly, epistemic infringement works to undermine an individual's sense that they can trust their own mind and take themselves seriously.

People have become epistemically unhealthy and cannot trust their perceptual deliverances because of the societal normalization of epistemic inequality within the present moment. Living in secrecy where users are unaware of the surveillance techniques being employed contributes to epistemic inequality, defined as "unequal access to learning imposed by private commercial mechanisms of information capture, production, analysis

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[53] Torres-Spelliscy, Ciara. "Does 'We the People' Include Corporations?" *American Bar Association*, www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/we-the-people/we-the-people-corporations/.

and sales."[54] Tech companies, in the name of protecting their competitive advantage, decided to actively suppress information on how they became extremely valuable. This meant laying down a blanket of secrecy that left users and competitors in the dark, and by living in this inequality that persists because of discreetness, a person's ability to know is actively damaged.

Epistemic inequality is fueled by the value of profit that proliferates within society. The for-profit economic system widens the gap for epistemic inequality because surveillance capitalists, incentivized by profit and optimization, are driven either to increase revenue or decrease costs. Firms can grow their profits by either increasing their revenue or decreasing their costs as profit is a firm's revenue minus their expenses. Both ways of increasing profits are intimately connected to the collection of data. If a firm wants to raise their revenue stream, they could collect more data. Data, in addition to being more valuable than oil, increases revenue because an entity's decision-making processes and predictive models are enhanced by the insights derived from data. A one-unit gain in knowledge learned from data is typically and positively correlated with a better decision made, which then acts as a proxy for an increase in revenue and profits. Corporations are incentivized to extract as much data as possible because they want to garner as much knowledge from their sample size composed of data points that translate the lives of human beings into numerical forms. But if a firm decides to decrease costs as a means to maximize profit, they can attempt to reduce the costs of colleting data. Surveillance capitalists attempt

[54] Zuboff, Shoshana, "You Are Now Remotely Controlled: Surveillance capitalists control the science and the scientists, the secrets and the truth." *New York Times*, 24 Jan. 2020, https://www.nytimes.com/2020/01/24/opinion/sunday/surveillance-capitalism.html

to reduce data collection expenses by receiving information for free. They use norms of community to foster a sense of intimacy, comfortability, and safety to increase the changes the person will add or create content to their technology platform. For example, it is "free" to ask Google your questions and "free" to post your picture to Instagram. Google's value of curiosity and Facebook's values of sharing, two generally positive principles, act as guises to make the user supply intimate information to their database.

These norms put in place significantly expand epistemic inequality. If the tech industry had a good cop-bad cop routine, giving people the opportunity to supply their information is their nice way of going about extracting data because oftentimes, tech giants will collect data without people's consent. It was just recently (December 2020) that Apple announced their plan to remove applications from the App Store that tracked users without consent. This might signal a trend of increased awareness in the importance of one's privacy, but because surveillance capitalism is a coupled system between the tech industry and government, it is important to note the historical legacy and potential possibility attached to the collection of information without one's permission. While Apple may be striving to be better at respecting one's privacy, this is the exception because the tech industry fundamentally depends on the collection of data. Epistemic inequality persists here because surveillance capitalists have the capability to learn in a way unknowable to people because digital consent is not taken seriously, and people are unaware that their data is being harvested and studied. People possess neither the capability to acquire large quantities of data nor the knowledge case to extract insights and formulate predictions.

The societal normalization of epistemic inequality flourishes in the state of surveillance capitalism. Zuboff tells us how epistemic inequality is best epitomized "in the fast-growing abyss between what we know and what is known about us."[55] This difference between what people know and what surveillance entities know culminate in a severe asymmetry of knowledge as surveillance entities "seize control of information and learning itself."[56] The schism creates tension that directly causes a "dissonance that is destabilizing to one's epistemic agency, particularly to her ability to trust the deliverances of her belief-forming mechanism."[57] The inequity of knowledge has restricted one's process of forming beliefs in such a way as to erode one's ability to know. Without particular forms of knowledge, belief formation might be impossible. For instance, being ignorant on the practices of the surveillance state preclude the individual from intentionally forming an accurate and precise beliefs about the practices of the surveillance state. If a person is living in a state of epistemic inequality, a person cannot trust their learnt perceptual deliverances to the same degree as the surveillance entity that has an enhanced capability to acquire knowledge. Damage to one's ability to know of the world typically results in a lack of trust in one's self because judgements are deemed by the self to be inaccurate and imprecise. This means an individual cannot take themselves seriously.

Often as a joke, people will say, "the computer knows me better than me," or "the algorithm knows what I like before I even like it." This is the root of the issue. The surveillance state has created a social environment where epistemic inequality flourishes

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[55] Zuboff, Shoshana, "You Are Now Remotely Controlled: Surveillance capitalists control the science and the scientists, the secrets and the truth." *New York Times*, 24 Jan. 2020, https://www.nytimes.com/2020/01/24/opinion/sunday/surveillance-capitalism.html
[56] Ibid.
[57] Leydon-Hardy, Lauren, "Epistemic Agency and the Deep Self." Amherst College, p. 9

and a person's judgements are deemed unreliable by the person themselves. Having a weakened belief-forming system is, according to Leydon-Hardy epistemically unhealthy because "she is cut off from the very resources – her own – that she will need to pull herself back into a proper understanding of her circumstances."[58]

Users, in virtue consuming gigabytes, even terabytes, of information on a daily basis, experience information overload where people's minds and brains feel fried. The human brains is overloaded and overstimulated. Surveillance capitalists want to extract as much information as possible which translates to their efforts in attracting you to their platform. This desire has manifested into the notification, "all the impressions that buzz around us like mosquitoes and make it hard for us to concentrate on what we're doing." [59] Our brains are limited in processing information. People's epistemic capabilities are damaged because the norms of surveillance capitalism make it acceptable to overload the brain with information. Daniel J. Levitin, a neuroscientist plus researcher, indicates that a person's brain must decide how to accomplish tasks, but by being bombarded with volumes (sometimes even decades of information), a person because indecisive where "this uncertainty wreaks havoc with our rapid perceptual categorization system, causes stress, and leads to decision overload." [60] The excess stimulation, information, and stress, byproducts of the cultural values and norms of surveillance capitalism, adversely impact

[58] Ibid., pp. 12

[59] "1: Introduction: The Stone Age Brain Meets the Information Flood." *The Overflowing Brain Information Overload and the Limits of Working Memory*, by Torkel Klingberg, Oxford University Press, 2009, p. 5, books.google.com/books?hl=en&lr=&id=IxMSDAAAQBAJ&oi=fnd&pg=PR13&dq=information+overload +effects+on+brain&ots=9dJfJV44tN&sig=yrY4FHAzCnOLs4YTjOxabeG- kXI#v=onepage&q=information%20overload%20effects%20on%20brain&f=false.

[60] Levitin, Daniel J. "Chapter 3: Organizing Our Homes - Where Things Can Start to Get Better." *The Organized Mind: Thinking Straight in the Age of Information Overload*, E. P. Dutton, 2014, p. 92.

both the psychological and neurological wirings of a person's brain in a manner that makes the individual not trust their perceptual deliverances.

The prevalent force of epistemic inequality extends to the role of memory in a person's belief-forming mechanism. Henry Giroux claims that living in a surveillance state directly damages people's memory, an instrumental element in one's epistemic competencies.[61] Surveillance capitalism through its norms of profit and security has short-circuited people's ability to remember and accelerated the rate at which people forget. In virtue of analyzing and consuming so much information, memory is sabotaged because the individual cannot fully absorb all available information and gain incredible insight from large databases of knowledge. The harmful effect is the loss of remembering, which is significant because memory is the tool that allows an individual to trust their perceptual deliverances and to know whether their beliefs coincide with the truth. When one loses the memory content and memory ability, one is stuck epistemically because an individual without memory does not have the tool to pull themselves back into epistemic alignment. Giroux emphasizes how the surveillance state, marked by the lack of privacy, erases memory by saying, "any thought of changing the world seem [like] an idly fantasy. We live in a historical moment when memory if not critical thought itself is either under attack of being devalued and undermined by a number of forces in American society."[62] The drive for profit, consumerism, security, and militarism, which all intersect through surveillance,

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[61] Giroux, Henry A. "Chapter 6: Organized Forgetting: Memory and the Politics of Hope." The Violence of *Organized Forgetting: Thinking beyond America's Disimagination Machine*, City Lights Books, 2014.
[62] Ibid., p. 73

are particular social poisons that make epistemic agents unwell, untrustworthy, and unable to flourish.

On the personal cost of technological progress

As participants of modernity where technology is a fundamental aspect of our daily lives, we don't just incur costs relating to the moral and epistemic realm, but we incur personal costs as individuals in many moments of our day. The purpose of this section is to create a chain that links together the differing personal costs a person incurs in virtue of being under surveillance and utilizing technology. The cost of one's privacy – the master key of one's intimate life coined by Véliz – the primary and first order cost a person experiences Specifically, it is this access to the digital that costs privacy for people. The individual must give up intimate pieces of knowledge about their life in order to gain access to the digital. Véliz exclaims how, "[surveillance capitalists] track and record all they can: our location, our communication, our internet searches, our biometric information, our social relations, our purchases, and much more." [63] Each piece of information mentioned in Véliz's quote demonstrates the specific costs we incur in virtue of participating in the digital economy.

Let us consider several examples. First, let's consider the moment someone decides to unlock their smart device and change songs. It is within this moment that the individual incurs privacy costs. Unlocking one's phone, a simple and (typically) harmless action, tells surveillance entities the time, the place, and the surrounding people of the individual,

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[63] Véliz, Carissa. "Introduction." *Privacy Is Power: Why And How You Should Take Back Control Of Your Data*, Bantam Press, 2020, p. 6.

assuming those around the individual also carry smart devices. Changing songs, on let's say Spotify, informs Spotify what songs have been played and what playlists a person created.[64] The individual, in this instance, loses the option to keep private a moment of their day from others – particularly, a person can't keep to themselves what song they changed to. The impact of violating privacy grows more when considering how there are some people you want to keep your distance from, and yet sometimes those same people, such as a former lover or an ex-friend, have access to such intimate details in real-time.

Or let's consider Denessa, a soon-to-be-mother who wants to keep secret her pregnancy from advertising companies. She wants to keep private that she is having a baby, especially since she has not even told her loved ones. Her logic is one where if her loved ones do not know about her pregnancy, then tech and advertising companies shouldn't know this information as well. However, keeping this information private is extremely difficult because the moment Denessa orders consumer products of anything related to the upbringing of a baby, she will be flagged as a person that has a probability of being a mother. If Denessa starts searching on Google, "safe home environments for baby." Using a search engine or ordering a product online are just two ways an individual gives up information about their lives. These pieces of information are the cost one experiences in accessing the digital. And in the case with Denessa, she would have to go through extreme lengths to keep hidden from the surveillance that she is not pregnant. She might purchase everything in cash as a means to not leave a digital footprint, which would mirror the behavior of people with nefarious motives such as a mafia boss. This is funny, because

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[64] "Privacy Center." *Spotify*, www.spotify.com/us/privacy.

Denessa is not a mobster, she is just a pregnant woman that wants certain information to remain private. The example of Denessa highlights a real-world issue, because Target, through their data collection and analysis, give people pregnancy score predictions allowing them to know whether you are pregnant – they can even estimate the due data within a small window, a window open enough for coupons to be sent strategically.[65] The example of using one's phone to change songs, Denessa's dilemma of keeping her status as mother a secret, and Target's data-driven predictions demonstrate the real, tangible costs associated with the loss of privacy.

Following this chain of costs created by surveillance, a person's resources is the next cost a person becomes subject to. Possessing a smart device and accessing the internet demands at least two specific resources: capital and time. Electricity, manufactured hardware, and coded software are typically not free under capitalism. And while there are pushes toward open-sourcing information such as data code to embrace transparency and making available smart devices for everyone, the prevalent norms in the status quo is one in which access to the internet is gatekept because entrance into the digital costs people capital. Capital, a resource and in one way, a store of value for a person's labor, is what needs to be exchanged, if a person is to have a digital existence. In conjunction with capital, time is another resource that is being given up. One second occupied in the digital space is one second that could have been spent elsewhere, such as the physical reality, independent of the digital. One's particular time surfing the web is a loss of a different potential gain

[65] Hill, Kashmir. "How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did." *Forbes*, Forbes Magazine, 31 Mar. 2016, www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did/?sh=3a6d47b86668.

from other alternatives from using one's time differently. A person, in virtue of buying clothes online for 30 minutes, lost the opportunity to use those 30 minutes to spend time picking flowers. Capital is a resource one needs to have control over the means of production, while time is a resource that an individual cannot get back. Back of these resources are important building blocks to the flourishing of a human being, and yet people have to give up their capital and time to access the realm beyond called the internet.

Privacy and resources are not the only costs one incurs in using technology, because being under surveillance costs someone their attention. Attention is an oracle that bridges one's brain to one's external surrounding. Klingberg describes attention as "the portal through which the information reaches the brain."[66] Placing one's attention on something means the individual is focusing on one part of reality and disregarding other parts of reality, demonstrating a sense of priority to certain information rather than other information. The surveillance state does their best to make their users prioritize content specific to their web platforms. Surveillance capitalists always want to grab our data, which means they want to keep us, their users, on their platform for as long as possible, but how they did even attract us to their platform? It is by constantly notifying the user does the surveillance entity (almost) involuntarily attract a person's attention. It is Facebook emailing you asking if you this person or LinkedIn sending a notification to your locked screen to share how someone has messaged you. Social media was intentionally made to catch your attention, retain your focus, and have you constantly looking at your black

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[66] "2: The Information Portal." *The Overflowing Brain Information Overload and the Limits of Working Memory*, by Torkel Klingberg, Oxford University Press, 2009, p. 9, https://books.google.de/books?id=sGzfcoyusLIC&printsec=frontcover&hl=de#v=onepage&q=the%20portal&f=false

mirror for new information. The surveillance state through various lines of programming code have hijacked a person's attention. This is the of technology and surveillance. A recent study in Nature Communication reflects this loss of attention because it found that humanity's collective attention span was becoming smaller, because of the accelerating flows of popular content enabled by surveillance capitalism.[67] Surveillance capitalism dictates how information is to be disseminated, and the way information moves rapidly exhausts a person's limited resources. A person's attention becomes a casualty in the age of technology, just like one's privacy, time, and capital.

Our chain of costs is now composed of three blocks: privacy, resources, and attention. The fourth block connected to our chain of costs incurred from technological usage is power, a cost intimately connected to the three other costs. The human being is powerful because of their value within and their capability to create value. Whether you want to take Marx's perspective where there is a separation between creator and creation or Véliz's perspective where the person is the commodity, it still stands that the surveillance state takes our value and exploits our capability to create value. Let's say the relationship between the power of the individual and the power of the surveillance state are inversely correlated – the increase in the individual's power corresponds to a decrease in the power of the surveillance state. The individual is disempowered because the value they are creating is taken by the surveillance state, weakening the person and strengthening surveillance capitalists. With this power, the surveillance state not only influences us by way of shaping preferences by using norms of community and sharing to persuade people

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[67] Lorenz-Spreen, Philipp, et al. "Accelerating Dynamics of Collective Attention." Nature News, Nature Publishing Group, 15 Apr. 2019, www.nature.com/articles/s41467-019-09311-w.

to upload content to their social media platform but forcefully impresses onto us by taking our data when we don't want it to be recorded. Power is lost because we don't control our data.

The cost of surveillance and technological becoming is immensely personal (and even spiritual) when one accepts the extended mind hypothesis put forth by Andy Clark and David Chalmers. In their paper, "The extended mind," Clark and Chalmers claim that the environment has a crucial and active function in facilitating cognitive processes. The reasoning process of a person that aids decision-making and promotes accurate perceptual deliverances sometimes depend on environmental supports. Employing a calculator, using pen and paper to discover/explore ideas, or rearranging the letters of Scrabble are examples of processes that take place in various parts of the physical world, traditionally understood as separate from one's sense of self as the calculator, pen and paper, and Scrabble letters exist outside one's selfhood. However, if these external actions – solving math problems, writing prose, rearranging tiles – were to take place in the head as if one had a supercomputer embedded in one's brain, then it follows, according to Clark and Chalmers, that we would have no trouble saying these processes belong to the mind. They claim that there is not a difference if the machine, where one calculated: $(20,000 \times 447\%)^{201}$, were inside of one's skull or outside of one's skin. There is not a difference because the cognitive process occurring in the physical world is literally part of the cognitive process, as Clark and Chalmers claim. Cognition exists as a coupled system uniting the human being and external parts of the world where both simultaneously interact with one another like a two-way freeway. External features such as a phone, a notebook, and music can inform a person

in the present moment, and thus influence a person's behavior and actions. "In areas as diverse as the theory of situated cognition (Suchman 1987), studies or real-world robotics (Beer 1989), dynamical approaches to child development (Thelen and Smith 1994), and research on the cognitive properties of collectives of agents (Hutchins 1995), cognition is often taken to be continuous with processes in the environment."[68] Environmental processes are not just mere extensions of one's thoughts, but rather they are one's thought processes as demonstrated by past scientific and empirical studies.

After establishing how cognition occurs in the environment, Clark and Chalmers extend their argument by indicating that external prats of the world significantly contribute to various mental states. Beliefs are and function as part of one's mind insofar as holding a belief constitutes a particular mental state. According to Clark and Chalmers, "beliefs can be constituted partly by features of the environment, when those features play the right sort of role in driving cognitive processes."[69] The mind extends into the world insofar as some person's beliefs, which are part of the mind's essence, can be stored in a place that exists outside one's physical self. Clark and Chalmers use two examples: Inga and Otto, to bring their idea to life. Inga reliably consults with her memory every day when necessary. For example, she checks in her memory, the storage of information within one's skull, to see if the museum is on 51st street. After confirming, Inga proceeds to go to the museum on 51st street. Otto's story is a direct parallel as Inga's except he consults with his reliable and accessible book of memories and important everyday instead of his memory because he

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[68] Clark, Andy, and David Chalmers. "The Extended Mind." *Analysis*, vol. 58, no. 1, 1998, pp. 10. *JSTOR*, www.jstor.org/stable/3328150. Accessed 3 May 2021.
[69] Ibid., pp. 12

has a memory disorder like Leonard Shelby in *Momento*. The book for Otto acts as a basic resource that he always uses in a cognitive task – consultation with the book is a prerequisite to action. The knowledge contained within Otto's notebook is essential in his capability to flourish as a cognitive agent. In virtue of being reliable and accessible, the book is present at any moment it is needed allowing Otto to endorse the information without any delay. Otto's story is interesting because Otto's beliefs, his mental states, are not stored in his head like Inga's – rather his mind is stored in his notebook. Clark and Chalmers show how beliefs, specific mental states of the brain, can be embedded into physical, worldly objects that exist beyond a person's skin surpassing the limits of one's skull.

The interest of this essay does not lay in the merits and demerits of the extended mind hypothesis, rather the interest lays in considering and imaging the world where the extended mind hypothesis is true. There is a difference between the appearance of things and the way things actually are, but let's suppose Clark and Chalmers are indeed correct insofar as the mind extends into the world and subsequently, one's sense of self extends past one's physical body. What are the implications? This is the question of interest, and I shall respond to this question in the context of the internet and its accompanying data-driven age of surveillance. The internet is a space where people can experience and live life. People can express sentiments, create art, communicate ideology, exchange value, learn history, and convey information in real-time across borders through the internet. with the advent of technology, people's lived experiences can exist in the physical and digital world. Not only is the internet a space where people can exist, but it's also the largest

historical ledger of humanity in one regard because the internet doesn't forget. From photos on Facebook to tweets on Twitter to purchases on Amazon, there is a record of every action a human being takes in the digital world, if chooses to not delete their information. The internet, a shared repository of information that continuously grows year after year, holds true beliefs about people and has the power to predict behavior. The cloud acts as a memory bank that holds the collective beliefs of humanity because technology corporations have the ability to extract and store accurate and precise beliefs in their databases. Sometimes they know what a person believes before they are even aware of what they like.

Accepting the extended mind hypothesis means accepting that the mind exists in places outside one's skull and skin in the form and shape of beliefs. And if one accepts those premises, it follows that the internet is a place where one's mind actual occupies given how the internet is place for mental processes and lived experiences for people's existence. When the surveillance state collects, trades, and manipulates pieces of our data, they are, in essence, messing with our mind. The data points are not just numbers on a spreadsheet – they are tangible pieces of our self that were taken from us. This is one of the ultimate costs we can incur as participants of technology, because our mind, our consciousness – the origin of where value comes from, the framework in which value manifests, an element of our humanity – is becomes fractured in a way because data, pieces of our mind, have been separated from us. Surveillance capitalists choose to actively regard our minds, something incredibly important, as gold mine ready to be extracted. Rather than appreciate the virtue the artfully inherent in one's mind, surveillance capitalists trample on

the people's humanity by stripping away pieces of a person's mind and selling them for cash. This is the ultimate price of surveillance capitalism: the loss of one's mind.

Section Three:

A paradigm shift is occurring now in which this historical unfolding will revolutionize the status quo. It started when Satoshi Nakamoto – inventor, architect, community builder, disrupter, digital enigma, world-historical individual – turned the world upside down, in virtue of creating Bitcoin in 2009 and introducing blockchain technology to the world for the very first time. Bitcoin's protocol continues to prosper in 2021 reaching all-time highs in price and has "given birth to over 4,000 individual blockchain networks that have allowed transactions between global individuals across any border," showcasing the influence of Nakamoto's work.[70] They transformed reality into something it was not because inventing blockchain technology was Nakamoto's way of bringing a certain 'newness' into the world. Bitcoin, and specifically its underlying foundation of blockchain technology, is a transformative tool that actively moves humanity beyond and past the current and traditional. Nakamoto transformed society by giving people an alternative to an outdated, archaic, and antiquated system of value defined by corruption, vulnerabilities, and the lack of trust.

Blockchain technology acts as a possible replacement for the status quo because it not only has the potential to destroy the centralization of power, but it also exists as a different value system that guarantees trust. Nakamoto aimed to establish one of the most

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[70] Redman, Jamie. "A Deep Dive Into Satoshi's 11-Year Old Bitcoin Genesis Block – Featured Bitcoin News." *Bitcoin News*, 3 Jan. 2020, news.bitcoin.com/a-deep-dive-into-satoshis-11-year-old-bitcoin-genesis-block/.

basic human elements on the internet: trust. The internet is not a space for people to interact physically, rather it is a place for consciousness to interact with consciousness. The metaverse is a virtual world where people congregate, and in virtue of being a place beyond the physical that does not follow the same truth laws such as the gravity that swing and keep in motion the celestial bodies, knowing and coming to trust another person digitally is ultra-important. This is why blockchain is incredible. The 'block' in 'blockchain' contains encrypted information relating to a business transaction such as the timestamp, exchange status, and persons involved in the transaction. These blocks of information are then chained together by time ensuring that these records achieve immutability. Blockchain technology has perfected the digital memory of humanity, because once something enters the blockchain, that information is there forever and tamper resistant. The blockchain is not stored on one computer, in one location, rather the existence of this information is shared as there are countless, identical copies of the blockchain distributed throughout the global network. Ethereum, invented by Vitalik Buterin (19 years old at the time of inception), evolved blockchain technology by enabling smart contracts. A contract is an agreement of having a lawful object entered into voluntarily by two or more parties, each of whom intends to create one or more legal obligations between them. But a smart contract, a program that runs on the Ethereum blockchain, defines rules like a regular, physical contract and yet it automatically enforces those rules via code.[71] Contracts on the blockchain hold value, release that value, create transparency about the state of the contract, and can define key conditions that the contract needs to meet.[72] This means that

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[71] Ziechmann, Kevin. "Introduction to Smart Contracts." *Ethereum.org*, 29 Mar. 2021, ethereum.org/en/developers/docs/smart-contracts/.

[72] Nazarov, Sergey, et al. "Chainlink 2.0 Whitepaper | Research Panel" *YouTube*, Chainlink, 29 April, 2021, min. 6:50, https://www.youtube.com/watch?v=7Ow8uN1TmxA&t=414s.

the Ethereum blockchain through the smart contract, rooted in Nakamoto's invention of blockchain technology, acts as this new system of valuation. The evolution of blockchain technology in the form of smart contracts allows us to fully trust another person without the need of a third-party intervening. One does not need a traditional bank to check if Tom received money from Jerry nor do they need an insurance company to receive a payout. Exchanges of value are recorded, and contracts are automated. Immutable record keeping was achieved by Bitcoin, but it was Ethereum's blockchain that enabled people to trust the enforcement of contractual rules in the digital space.

Satoshi Nakamoto revolutionized and transformed reality because they built a system – based on blockchain technology – where people don't need to and aren't forced to trust a middle-person, corporation, government because blockchain technology can be a decentralized network that isn't controlled by a singular entity. Satoshi Nakamoto is a world-historical person because they actualized a possibility that stood in direct opposition to the status quo as bitcoin disrupted long-standing norms of allowing trust to be determined by centralized parties. Nakamoto was largely driven by the intertwining elements of the social, economic, and political conditions at the time, especially regarding the concentration of power within public and private institutions in the form of money, dollars, and fiat currencies. Nakamoto wrote, "the root problem with conventional currency is all the trust that's required to make it work. The central bank must be trusted not to debase the currency, but the history of fiat currencies is full of breaches of that trust. Banks must be trusted to hold our money and transfer it electronically, but they lend it out in

waves of credit bubbles with barely a fraction in reserve"[73] Embedded in Nakamoto's quote

is a description of the conditions of the status quo where tradition entailed both the trust in

centralized authorities and the continuous pattern of trust violations by these trusted parties,

such as banks – the titans that rule supreme in the financial industry. The individual is not

autonomous and free since their life and personal possessions were subject to the arbitrary

willpower and decision-making process of major, societal institutions – the same

institutions that collect and trade our data non-consensually. Under the traditional regimes,

governments and banks have a long and deep history in devaluing currencies, violating a

person's (financial) privacy, seizing a person's cash without due process, and still acting

reckless with people's means of survival, money. Nakamoto emphasizes this point in the

"genesis block," the first batch of bitcoins ever mined which contains the following

message: "The Times 03/Jan/2009 Chancellor on brink of second bailout for banks."[74] The

message demonstrates the revolutionary nature of Satoshi Nakamoto because it's a war cry

against the inadequacies of centralization and traditional finance.

How does this relate to surveillance capitalism? Surveillance capitalism has been

ingrained in our psyche and embedded in our reality. It is a system that has a totalizing

power that commits doxastic wronging by believing people to be objects, damages people's

epistemic capabilities, and traps the mind of the individual. The chance of overcoming this

power is slim – the union of the public and private institutions that conduct surveillance

are as strong as ever, and so truly breaking free from this system is hard, but blockchain

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[73] Nakamoto, Satoshi. "Bitcoin Open Source Implementation of P2P Currency." *Satoshi Nakamoto Institute*, 11 Feb. 2009, satoshi.nakamotoinstitute.org/posts/p2pfoundation/1/..

[74] Sherry, Benjamin. "What Is the Genesis Block in Bitcoin Terms?" *Investopedia*, Investopedia, 1 May 2021, www.investopedia.com/news/what-genesis-block-bitcoin-terms/.

has the potential to help fight against surveillance capitalism. People can live in a greater state of freedom in the context of the internet with blockchain technology. This entire section has been focused on blockchain technology with respect to finance, but the real beauty of blockchain technology stems from not needing a third party for anything. Just as we don't need banks for systems of value, we don't need tech entities who control social, digital platforms and the subsequent data. Web 1.0 was when we – regular people – could only read from the computer. Web 2.0 was when we had the capability to be content creators; we made the internet bigger in terms of media size because we generated value by uploading content on YouTube, Facebook, Clubhouse, etc. Web 2.0 was limited because while we were able to be content creators, all of our created data and value was captured by the tech entities that controlled the actual platform, whether it be Instagram or Tik Tok. Blockchain technology enables for Web 3.0 where people can protect and control of their digital existence. People now have the capability to recognize and trust other people in the digital space wholeheartedly as contracts made and created on the internet are enforceable between two parties, without the need for a third-party facilitator. Records of a person's existence in cyber space don't have to stored and controlled by centralized parties. Even though all transactions are public on the blockchain, people's identities are encrypted ensuring their private information is not tied to any specific transactions. Protocols supported by blockchain technology give people the option to exist in a digital space where privacy is protected, and their data is secured. Nakamoto established and secured trust in the digital space without the need of a third-party granting people the ability to flourish better. By establishing truth and securing trust in the digital space without the need of a third-party, Nakamoto granted people the ability to flourish better. Now that records and

information can be stored in a decentralized manner, people can continue using technology, but opt out of a system that has a significant moral, epistemic, and personal price.

People do not have to participate in a centralized digital system that is based on the beliefs that people are just objects of information. Blockchain technology does not change the way people perceive other people in thought as the surveillance state will continue to objectify the individual and ignore a person's humanity. However, a blockchain powered digital, a competing and relevant alternative to the current digital space, is not based on the exploitation of a person's personal information. A decentralized digital space aims to respect a person's existence in cyberspace in contrast to the current, centralized digital that aims to reduce the user to just a source of information. This means that blockchain technology acts as a possible solution to doxastic wronging because people are not subject to a system that is based on the beliefs that its users are just pieces of information waiting to be collected. One's epistemic capabilities are also strengthened because blockchains acts as a trustless system insofar as it allows two individuals to exchange information in a peer-to-peer fashion over the internet. The technology guarantees and ensures the authenticity of the sender and the validity of the currency amount because there are mechanisms in place where all parties reach consensus on what the truth is. In this sense, power to determine consensus is distributed among the network's key stakeholders and not within the hands of a single entity. A person's epistemic capability is strengthened because the blockchain allows the individual to trust their judgements about the digital reality in a way that is precise and accurate. Lastly consider Ocean Protocol, a project in the crypto space that is trying to solve the data sharing problem. Every person creates a stream of data, and

yet we don't own it because people give up their data for free letting companies sell it. Ocean Protocol is trying to give people full control over their intellectual property, the power to manage their data, while allowing these same people to share their data to allow researchers to gain critical insights. If this is true, Ocean Protocol would be a solution to the dilemma brought forward by Clark and Chalmer's extended mind hypothesis. Ocean Protocol would allow a person to determine their data, which would mean one could protect their mind from being looted. If people have full control over their data, it follows that they retain pieces of their mind for if the mind is not intellectual property, then down is up. A person can remain whole and retain pieces of their humanity instead of being ripped by surveillance capitalist, thanks to blockchain technology. Blockchain reinvents the mechanism for how data is stored, because data through blockchain technology allows for data to not be centrally stored.

Conclusion:

Blockchain technology has the potential to be part of the solution to the extant ways the surveillance state adversely affects people, but it is not the end-all-be-all solution because just as traditional technology, blockchain technology is not exempt to the way power operates nor does it come without any costs. It is reasonable (and even correct) for one to believe that blockchain is another tool to make capitalism more efficient as loans in the crypto-space can be used to finance projects, oracles – decentralized feed services that provide external data onto the blockchain – authorize new forms of future contracts, and transactions can be secured and executed instantaneously. Moreover, blockchain technology uses large quantities of energy causing much controversy in the climate-change

debate. All problematic aspects of blockchain technology, including its ability to refine the capitalist system and its consumption of energy, are insufficient to remove blockchain technology from our imagination of the future, because blockchain technology facilitates trust and privacy in the digital space. In virtue of possessing the possibility to create a decentralized, trust system, blockchain technology can alleviate the costs of surveillance capitalism by redefining the backend data structures of the Internet in a way that enables peer-to-peer exchanges without intermediaries. We cannot cast aside blockchain technology, because as Ki Chong Tran says, "the main reason that so many people are working hard to redesign the current Internet is because the majority of today's most-used Internet platforms are controlled by only a handful of powerful companies, which profit from the data users generate."[75] Blockchain technology, which allows the existence of Web 3.0 is a fundamentally new way for people to have occupy the digital space without losing privacy or data. Remember how the problem with surveillance capitalism is rooted in tech entities selling of users' extracted data to advertisers, and because of this problem, the participant in the digital age incurs several costs detrimental to their flourishing. The decentralized aspect of blockchain technology allows for an openness where one – and not others – control their data, making it easier for one to flourish. Blockchain, like traditional technology, is a tool that can be used for ugly or beauty or anything in between. This "in between" is important because operating in binary framing – zero and ones or black and white – shuts down informative dialogues that would be helpful in raising self-awareness about one's relationship with their data. While it is a good idea to remain critical in how technology is conceived and implemented, it is also a good idea to imagine how blockchain

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[75] Tran, Ki Chong. "What Is Web 3?" Decrypt, Decrypt, 4 Dec. 2019, decrypt.co/resources/what-is-web-3.

technology can radiate forces of positivity in a way uniquely different from traditional tech

entities. The role of the reader is to better comprehend one's relationship with data because

this comprehension reminds people how powerful one is in being valuable and creating

value. By recognizing the condition of a human being as a creator, we are better positioned

to create a reality where blockchain technology is not coopted by the prevailing structures

of power.

Works Cited:

[1] "Annual Report: Form 10-K." SEC Filings Details, *Facebook Investor Relations*, January 28, 2021, pp. 50, https://investor.fb.com/financials/sec-filings-details/default.aspx?FilingId=14646367.

[2] Arendt, Hannah. "Chapter 1: The Human Condition." *The Human Condition*, [Chicago]: University of Chicago Press, 1958, p. 9.

[3] Basu, Rima "A Tale of Two Doctrines: Moral Encroachment and Doxastic Wronging." *Claremont McKenna College*

[4] "Blank Is Beautiful: Three Decades of Erasing and Remaking the World." *The Shock Doctrine: The Rise of Disaster Capitalism*, by Naomi Klein, Metropolitan Books, 2014, p. 10.

[5] Brison, Susan J., et al. "PERSONAL IDENTITY AND RELATIONAL SELVES." *The Routledge Companion to Feminist Philosophy*, Routledge, Taylor & Francis Group, 2017, p. 226.

[6] Clark, Andy, and David Chalmers. "The Extended Mind." *Analysis*, vol. 58, no. 1, 1998, pp. 10. *JSTOR*, www.jstor.org/stable/3328150. Accessed 3 May 2021.

[7] Dai, Jessica. "THE PARADOX OF SOCIALLY RESPONSIBLE COMPUTING: The Limits and Potential of Teaching Tech Ethics." *The College Hill Independent*, 3 Dec. 2020, www.theindy.org/2235.

[8] Day, Andrea, and Jennifer Schlesinger. "How GPS Can Track You, Even When You Turn It Off." *CNBC*, CNBC, 14 July 2018, www.cnbc.com/2018/07/13/gps-can-spy-on-you-even-when-you-turn-it-off.html.

[9] "Economic and Philosophic Manuscripts (Selections)." *Selected Writings*, by Karl

Marx and Lawrence Hugh Simon, Hackett, 1994, pp. 63–64.

[10] Estrin, Daniel. "Vaccines For Data: Israel's Pfizer Deal Drives Quick Rollout —

And Privacy Worries." *NPR*, 31 Jan. 2021, text.npr.org/960819083.

[11] "FAQs." *Facebook Investor Relations*,

investor.fb.com/resources/default.aspx#:~:text=Facebook%20Investor%20Relations%3F-

,What%20is%20Facebook's%20mission%20statement%3F,express%20what%20matters

%20to%20them.

[12] Felluga, Dino. "Modules on Foucault: On Panoptic and Carceral Society."

Introduction Guide to Critical Theory. January 11, 2011. Purdue U. May 2, 2021.

https://cla.purdue.edu/academic/english/theory/newhistoricism/modules/foucaultcarceral.

html

[13] Giroux, Henry A. "Chapter 6: Organized Forgetting: Memory and the Politics of

Hope." *The Violence of Organized Forgetting: Thinking beyond America's*

Disimagination Machine, City Lights Books, 2014.

[14] Giroux, Henry A. *Dangerous Thinking in the Age of the New Authoritarianism*. 1st

ed., Routledge, *Taylor & Francis Group*, doi.org/10.4324/9781315635316 . **Note: I

was able to see this on the preview section of google books and so I was not able to see

the page number nor the specific chapter

[15] Giroux, Henry A. "Totalitarian Paranoia in the Post-Orwellian Surveillance State."

Cultural Studies, vol. 29, no. 2, 2014, pp. 108–140., doi:10.1080/09502386.2014.917118.

[16] "Google Code of Conduct." *Alphabet Investor Relations*, 25 Sept. 2020,

abc.xyz/investor/other/google-code-of-conduct/.

[17] Google. Final Prospectus . U.S. Securities and Exchange Commission , 18 Aug.

2004,

www.sec.gov/Archives/edgar/data/1288776/000119312504143377/d424b4.htm#toc5933

0_11., p. 3

[18] Graeber, David. "On the Misery of Not Being a Cause." *BULLSHIT JOBS: A

THEORY*, Simon &Schuster, 2018, p. 113.

[19] Hill, Kashmir. "How Target Figured Out A Teen Girl Was Pregnant Before Her

Father Did." *Forbes*, Forbes Magazine, 31 Mar. 2016,

www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-

pregnant-before-her-father-did/?sh=3a6d47b86668.

[20] Johnson, Joseph. "Number of Google Employees 2018." *Statista*, 8 Feb. 2021,

www.statista.com/statistics/273744/number-of-full-time-google-

employees/#:~:text=As%20Alphabet%2C%20the%20company%20employs,other%20te

mporary%20and%20internship%20positions.

[21] Kanevsky, Dimitri. "Technology Change as the Great Equalizer." *National Archives

and Records Administration*, Obama White House, 7 May 2012,

obamawhitehouse.archives.gov/blog/2012/05/07/technology-change-great-equalizer.

[22] Klingberg, Torkel. "1: Introduction: The Stone Age Brain Meets the Information

Flood." *The Overflowing Brain Information Overload and the Limits of Working

Memory*, Oxford University Press, 2009, p. 5,

books.google.com/books?hl=en&lr=&id=IxMSDAAAQBAJ&oi=fnd&am

p;pg=PR13&dq=information+overload+effects+on+brain&ots=9dJfJV44tN&a

mp;sig=yrY4FHAzCnOLs4YTjOxabeG-

kXI#v=onepage&q=information%20overload%20effects%20on%20brain&f=f
alse.

[23] Klingberg, Torkel. "2: The Information Portal." *The Overflowing Brain Information
Overload and the Limits of Working Memory*, Oxford University Press, 2009, p. 9,
https://books.google.de/books?id=sGzfcoyusLIC&printsec=frontcover&hl=de#v=onepag
e&q=the%20portal&f=false

[24] Lau, Darren, et al. *HOW TO DEFI.* 1st ed., Coin Gecko, 2020.

[25] Levitin, Daniel J. "Chapter 3: Organizing Our Homes - Where Things Can Start to
Get Better." *The Organized Mind: Thinking Straight in the Age of Information Overload*,
E. P. Dutton, 2014, p. 92.

[26] Leydon-Hardy, Lauren, "Epistemic Agency and the Deep Self." Amherst College.

[27] Nakamoto, Satoshi. "Bitcoin Open Source Implementation of P2P Currency."
Satoshi Nakamoto Institute, 11 Feb. 2009,
satoshi.nakamotoinstitute.org/posts/p2pfoundation/1/..

[28] Nazarov, Sergey, et al. "Chainlink 2.0 Whitepaper | Research Panel" *YouTube*,
Chainlink, 29 April, 2021, min. 6:50,
https://www.youtube.com/watch?v=7Ow8uN1TmxA&t=414s.

[29] "Our Mission." *Robinhood*, robinhood.com/us/en/support/articles/our-mission/.

[30] Lorenz-Spreen, Philipp, et al. "Accelerating Dynamics of Collective Attention."
Nature News, Nature Publishing Group, 15 Apr. 2019, www.nature.com/articles/s41467-
019-09311-w.

[31]Price, Catherine, "Trapped – the secret ways social media is built to be addictive (and
what you can do to fight back)." *Sciencefocus.com*, 29 Oct. 2018,

https://www.sciencefocus.com/future-technology/trapped-the-secret-ways-social-media-is-built-to-be-addictive-and-what-you-can-do-to-fight-back/

[32] "Privacy & Civil Liberties Engineering." *Palantir*, www.palantir.com/pcl/.

[33] "Privacy Center." *Spotify*, www.spotify.com/us/privacy.

[34] Redman, Jamie. "A Deep Dive Into Satoshi's 11-Year Old Bitcoin Genesis Block – Featured Bitcoin News." *Bitcoin News*, 3 Jan. 2020, news.bitcoin.com/a-deep-dive-into-satoshis-11-year-old-bitcoin-genesis-block/.

[35] Reyburn, Scott. "JPG File Sells for $69 Million, as 'NFT Mania' Gathers Pace." *The New York Times*, The New York Times, 11 Mar. 2021, www.nytimes.com/2021/03/11/arts/design/nft-auction-christies-beeple.html.

[36] Risen, James, and Eric Lichtblau. "How the U.S. Uses Technology to Mine More Data More Quickly." *The New York Times*, The New York Times, 9 June 2013, www.nytimes.com/2013/06/09/us/revelations-give-look-at-spy-agencys-wider-reach.html?pagewanted=all&ref=general&src=me&_r=1&.

[37] Sandler, Rachel. "Pentagon Awards JEDI Contract To Microsoft-Again-In Blow To Amazon." *Forbes*, Forbes Magazine, 5 Sept. 2020, www.forbes.com/sites/rachelsandler/2020/09/04/pentagon-awards-jedi-contract-to-microsoft-again-in-blow-to-amazon/?sh=4cb3b253505f.

[38] Santani, Sumeet, "Why Data is the New Oil." *Syracuse University: School of Information Studies*, 26 Feb. 2018, https://ischool.syr.edu/why-data-is-the-new-oil/

[39] Savage, Charlie. "Intelligence Analysts Use U.S. Smartphone Location Data Without Warrants, Memo Says." *The New York Times*, The New York Times, 22 Jan. 2021, www.nytimes.com/2021/01/22/us/politics/dia-surveillance-data.html.

[40] Scheel, Rafael. "Smart TV Hacking (Oneconsult Talk at EBU Medica Cyber Security Seminar)." *YouTube*, Oneconsult AG, 2017, Description: "In a presentation to the European Broadcasting Union (EBU) Rafael Scheel (Senior Penetration Tester & Security Researcher at Oneconsult AG) gives an introduction to IoT cyber security and shows a live hacking demo an attack which allows to remotely takeover bulk smart TVs over the TV stream signal. About 90% of the TVS sold in the last years are potential victims of similar attacks. https://www.oneconsult.com/en/. UPDATE: The DVB Steering Board has approved updates to the technical specifications to prevent man-in-the-middle attacks…" https://www.youtube.com/watch?v=bOJ_8QHX6OA

[41] Sherry, Benjamin. "What Is the Genesis Block in Bitcoin Terms?" *Investopedia*, Investopedia, 1 May 2021, www.investopedia.com/news/what-genesis-block-bitcoin-terms/.

[42] Snowden, Edward. "Chapter 16: Tokyo." *Permanent Record*, Metropolitan Books, 2019.

[43] Sripada, Chandra. "Self-Expression: a Deep Self Theory of Moral Responsibility." *Philosophical Studies*, vol. 173, no. 5, 2015, pp. 7., doi:10.1007/s11098-015-0527-9.

[44] "The World's Most Valuable Resource Is No Longer Oil, but Data." *The Economist*, The Economist Newspaper, 6 May 2017, www.economist.com/leaders/2017/05/06/the-worlds-most-valuable-resource-is-no-longer-oil-but-data.

[45] Thompson, Derek. "Tech Was Supposed to Be Society's Great Equalizer. What Happened?" *The Atlantic*, Atlantic Media Company, 1 Oct. 2018, www.theatlantic.com/technology/archive/2018/09/tech-was-supposed-to-be-societys-great-equalizer-what-happened/571660/.

[46] Torres-Spelliscy, Ciara. "Does 'We the People' Include Corporations?" *American Bar Association*,

www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/we-the-people/we-the-people-corporations/.

[47] Tran, Ki Chong. "What Is Web 3?" Decrypt, Decrypt, 4 Dec. 2019,

decrypt.co/resources/what-is-web-3.

[49] Véliz, Carissa. "Chapter Two: How Did We Get Here?" *Privacy Is Power: Why And How You Should Take Back Control Of Your Data*, Bantam Press, 2020.

[50] Wakabayashi, Daisuke, and Tiffany Hsu. "Behind a Secret Deal Between Google and Facebook." *The New York Times*, The New York Times, 17 Jan. 2021,

www.nytimes.com/2021/01/17/technology/google-facebook-ad-deal-antitrust.html.

[51] Warzel, Charlie. "Facebook Under Oath: You Have No Expectation of Privacy." *The New York Times*, The New York Times, 18 June 2019,

www.nytimes.com/2019/06/18/opinion/facebook-court-privacy.html.

[52] Ziechmann, Kevin. "Introduction to Smart Contracts." *Ethereum.org*, 29 Mar. 2021,

ethereum.org/en/developers/docs/smart-contracts/.

[53] Zuboff, Shoshana, "You Are Now Remotely Controlled: Surveillance capitalists control the science and the scientists, the secrets and the truth." *New York Times*, 24 Jan. 2020, https://www.nytimes.com/2020/01/24/opinion/sunday/surveillance-capitalism.html

[54] Zuckerberg, Mark. "Facebook CEO Mark Zuckerberg TechCrunch Interview At The 2010 Crunchies." *YouTube*, Zennie62 Oakland News Now Daily Commentary Live, 2010, min. 3:15–3:35, www.youtube.com/watch?v=LoWKGBloMsU.