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THE DIGITIZED FUTURE

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# **Cyber Vision of the Digitized Future**

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## Table of Contents

Amazon as a contributor to the want-for-efficiency veil	
<i>Transformation and transferal of space</i> .....	7
<i>Veiled existence of created space</i> .....	9
<i>Loss of one's control over their own     space or place</i> .....	11
<i>Impacts of veil: work conditions, housing     market, and environment</i> .....	14
Impacts of want-for-efficiency veil on society	
<i>Want-for-efficiency veil</i> .....	18
<i>Introduction of society's morality issue</i> .....	20
<i>Morality vs. Efficiency</i> .....	20
The transformation of roles within a place, alienation from the work and the body, and the question of an utopic real .....	22
Transferal of reality, potential of AI, and consciousness vs. identity .....	25
Concluding thoughts and statements .....	29
Bibliography .....	30

In this day and age, eyes are constantly scanning, and hands are incessantly swiping, scrolling, tapping, and clicking. These physical actions are most common when a human interacts with a digital screen, like a smartphone, tablet, or computer. Such simple actions generate communication, exponential information, entertainment, and even the ability to make purchases. All of this can occur without speaking. Existing vocal commands are becoming too much of a nuisance and soon will be unnecessary. Smart phones or other digital devices make access to digital platforms portable. Nowadays, everyone has a cell phone; even kids under the age of ten own or have easy access to one. The need for convenience in all daily tasks is especially impacting the e-commerce market. Being able to order items online and have them shipped to their destination the next day is somewhat mind blowing. Phone-formatted online consumer platforms are equipped with quick shortcuts that cater towards a specific item of interest, such as search bars, price regulators, and style preferences. Not only are the designs structured around organization and efficiency, their flashiness make them eye catching and inviting to click. These multiple design features draw the eyes to specific parts of the web page, products, and even pop-up advertisements. When the attention-capturing features reel in the consumer and an item is purchased, what space is being transformed? As well as this new afforded convenience, e-commerce sites transform physical information into digital spaces. These digital spaces collect and catalogue the information of the individuals who participate. Moving towards a technologically advanced future, where Artificial Intelligence (AI) will be greatly

integrated into society, this digital information can pose a threat to privacy and free will.

Within my creative studio practice I exclusively source my material from online consumer platforms. Most of the time, the products I purchase are suggested to me based on my past searches and clicked interests. These suggestions appear as advertisements on different websites, or as highlighted products on a consumer platform. When my hand slides across the glossy screen on my phone, or the smooth matte touch pad on my laptop, my eyes become locked onto the digital image. My senses interact with a physical surrogate for these consumer products instead of the actual items. Electronic devices and their digital pixels stand in for products. Thus, my online consumption becomes a sort of metaphysical experience. Images and words describe the object, and I am forced to imagine how the item would interact in the physical world. If I choose to purchase the item, a virtual representation bearing no mass on the internet, transforms, transports, and materializes as a physical object with mass on my doorstep. In my mind I perceived the item to look one way, but almost never is it identical to what I receive. I bestow trust in the platform. I expect it will display a proper image and a description. How many times have you ordered an item and it was not what it was supposed to be? What other terms and outcomes do we accept during this transitional period of digital image to physical item?

The loss of space and of consumer control within the e-commerce place is occurring. In his seminal essay, *The Practice of Everyday Life*, Michel de Certeau asserts that space is usually mobile and place is stable. In this case, it's safe to say that the

place is the digital consumer market and the space are the items within it. So, what steps and processes occur between sourcing the item and obtaining it? Certeau also writes about sub-spaces. In Certeau's philosophy, a subspace can act as the space the object occupies in the warehouse before shipment. Pixels are no longer in the picture; that space has been transformed and expanded into a desired physical object within the shipping (transportation) system.

In the last few years, the level of efficiency has increased tremendously throughout the shipping processes. Causing one to question how is this process being skewed for the online consumer who is removed from the physical process of purchase? However, how is that process being skewed to the people not physically involved with that process, such as online consumers? The digital world produces a multifaceted network of perceptual space and subspaces. Many of these spaces remain unrealized to the consumer. There are blind spots such as worker conditions, physical space of iCloud servers, and the environmental impacts of the e-commerce market. These spaces impact the way people tangibly engage with the advertised merchandise. How are these blind spots affecting human perception via sensorial modalities and observations? When thinking about the whole transportation process, does the item still remain an image in one's mind until they receive it? If the shipping system can be thought of as a place, is this image of the item in one's mind a perceptual subspace? How many perceptual subspaces are there throughout this whole process, and are they even important to mention and identify? Once again, the trust people put into this digital consumer market is one of the reasons most of these

subspaces of the shipping process are looked past and accepted. These markets have enabled the entirety of production and its consequences to be overlooked by the consumer. Most importantly, if this blind trust in a digital consumer platform remains strong, efficient, and beneficial to the consumer, what acts and impacts of the digital consumer process are being looked over, accepted, insidiously enticing people's trust, creating dependency, and capturing their knowledge?

The current consumer based society has provided a culture of comfort and ease due to its emphasis on efficiency and the cutting-edge through the use of technology. The use of the term efficiency is to elucidate a lifestyle that is full of convenience and is reliant on technology to perform and automate tasks. Our capitalistic, consumer based society relies on efficiency to exist. When e-commerce is efficient, there is a higher chance of sale. There are less intervals of time for a consumer to resist their purchase. Capitalism utilizes efficiency to exploit the consumer's desire. It reifies its power over us. Due to these newly afforded comforts, people— and society as a whole— will anticipate and desire a more easygoing, prosperous, and peaceful future; especially when the future seems bleak and doomed at the moment. This hope for an utopian future is distracting and allows one's own conscious to be diverted. Like a veil, this promise of utopia diverts our attention away from the harmful impacts of the process, allowing us to strive towards such a future without guilt. The fetishization of efficiency is, in truth, an entire distraction. This process of distraction will be referred to as the want-for-efficiency veil throughout this essay.

Are these efficient spaces causing damage to others and places involved just to satisfy the consumer? How are these spaces connected to the capitalistic and consumer marketplace? When an order is placed through an e-commerce platform such as Amazon, what digital and physical spaces and places are being transformed, transferred, veiled, created, and ignored?

#### Transformation and transferal of space

The action of clicking- and, more recently, tapping— of a desired product immediately launches a shipment order to one of Amazon's fulfillment centers. Within their fulfillment centers, a huge robotic arm, Robo-Stow or Optimus Stow to Prime, lifts incoming stacks to an upper level in the facility. Once these stacks of packages are transported to the upper level, they're received, sorted, and organized onto specific shelves by the facility's human workers — Amazon refers to them as associates. According to a 2016 Seattle Times article, once an associate fully stocks a warehouse shelf, it's heaved away by an Amazon robot that closely resembles a large orange Roomba vacuum cleaner. These machines are a product of the robotic company Kiva Systems, one that Amazon purchased back in 2012 for \$775 million. One would think that all these robots moving around on the floor, which are "16 inches tall and almost 145 kilograms [and] can run at 5 mph and haul packages weighing up to 317 kilograms"(González, 2016), would be bound for disastrous crashes and mix-ups. That is not



the case, however. There are QR codes strategically placed on the ground in a specific way providing the robots with information about precise movements, placements, speeds, etc. Seeing the physical movement of the robots sorting the packages derived from digitized information is quite intriguing and astonishing, but humorous in a way. They seem to embody the lives of worker ants — some moving at a normal pace carrying out their task and some sporadically sprinting to a destination. The organized products are placed into a brown paper bag, which they refer to as totes. Associates, identified as Pickers, bring the products to the Packing Station. Once they arrive, other associates pack, stuff, and seal the products into specifically-sized cardboard boxes. The size of the box is designated by Amazon's digitized system; there is no room for human judgment error here. Once the individual items are packed, they travel on a conveyor belt to the machine referred to as the SLAM Line. SLAM is an acronym for scan, label, apply, and manifest— this is the first point where a machine digitally inputs the consumer's name, shipping address, and package information onto the box. Next, the packages are ready to be transferred to one of the outsourced couriers', such as FedEx or UPS. Through viewing multiple YouTube videos<sup>1</sup> of the process, I learned that the way associates pack the trucks can be compared to a game of Tetris; less empty space, means more boxes, and that ultimately means more money and better efficiency.

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<sup>1</sup> Check Bibliography for a linked example of an online video titled, "How Amazon Receives Your Inventory" to watch the video.

## Veiled existence of created space

Taking a step back: Try to imagine how many people are digitally ordering a product off of Amazon at this very moment. It's unimaginable. In a report released by Sanford C. Bernstein, "Amazon ships an average of 608 million packages each year, which equates to (an estimated) 1,600,000 packages a day. That's a lot of cardboard, even when we consider some of the packaging used may be padded envelopes"(Perlman, 2015). For those numbers to make sense, there are lingering unaddressed questions, such as: how large are these fulfillment centers, how much packaging is needed, how much electricity is used, how many trucks, how much gas is used, and how many employees does it take to run these transactions? Amazon does not release these details, which leads to one question— what physical space is being taken up by all of Amazon's packaging and shipping processes? In the Bay Area, for example, there is a 110,000-square-foot building at 250 Utah Ave, one in South San Francisco, another location which is 500,000-square-feet at 3811 Cherry Ave. in Newark, CA. Most recently, Amazon signed a 1 million-square-foot lease in the city of Tracy, CA.<sup>2</sup> That is equivalent to about 28 football fields, just to cater to the demand of the Bay Area. These facilities do not disclose public information about their output and input of products. Rarely does anyone think about this space being physical; this is striking especially because they are large and close in proximity to highly populated urban areas. According to Kevin Hatcher of Colliers International commercial real estate, the

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<sup>2</sup> Check Bibliography for a linked example of the online, *San Francisco Business Times*, article, "How many cardboard boxes does Amazon ship each day?" for more information about Amazon's real estate in the Bay Area.

buildings that are being bought or constructed, such as Class A industrial buildings, are preferred because they have more vertical space to store products, more loading docks per square foot, and more storage trailers. Hatcher claims that this building design is much more efficient to house warehouse based processes.<sup>3</sup> Once again, efficiency is key throughout Amazon's operation process.

Within the building, as mentioned earlier, there are tons of physical machines replacing jobs once held by humans. These machines, especially robots, are all physical but they're powered by a computer— they're controlled by a series of codes. Amazon would not be able to exist if it was not for the internet. So, how does all of this digital space even exist? Servers help run Amazon's digital operations, but where are these located? In order to run smoothly, Amazon has their own web services (AWS), where they use the server space but also sell their cloud services to other companies. They're projected to make 6 billion dollars per year from that endeavor. Even though Amazon is one of the top companies in the world, "the sheer remarkability of the AWS building—despite its conspicuous water tanks, its generators, its high fences, and surveillance cameras—serve as a reminder of why it's easy to overlook how important AWS is to the public experience and perception of The Cloud"(Burrington, 2016). The location of the AWS is key. Despite Amazon not releasing exact numbers about the amount of global interest that is involved within AWS, network intelligence startup, DeepField, estimated that, in 2012, one third of all daily internet

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<sup>3</sup> Refer to the *Bizjournal* article, "Exclusive: Amazon leases 224,000-square-foot East Bay warehouse as Bay Area growth continues.", by Li Roland within the Bibliography for more information.

usage accesses a site running on AWS. With that said, this percentage has most likely increased since 2012.<sup>4</sup> When people think of the Cloud, they think of information that is stored digitally. They're not thinking about the place that it's stored physically— just that it is space. Why do most people turn a blind eye on this and deem the Cloud space as a trustworthy space? There are those who did not trust it at first with all of their personal information, photographs, and contacts, but look at society now. Most people's data is stored on some piece of hardware that they don't have physical access to. Considering this, what other aspects within this digitized, yet physical, space is lacking human physicality, society's awareness, and a sense of control due to the desire for an efficient future?

#### Loss of one's control over their own space or place

Amazon's efficiency cannot exist without the help of robots and machines, but the processes they perform cannot exist without humans. Currently, this is the balance between technology and human interaction within the workplace. Will there be a breaking point between the assimilation of technology into the workplace and the impacts it has on the surrounding workers, economy, and environment? What advancements have robotics companies made to increase the presence of automation within

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<sup>4</sup> Check Bibliography for a linked example of the online, *The Atlantic*, article, "Why Amazon's Data Centers Are Hidden in Spy Country" for more information about the location of AWS.

warehouse-based companies like Amazon? Alberto Rodríguez, a robotics researcher at the Massachusetts Institute of Technology, and his team created "...a robotic arm that very slowly, but successfully, picked items of several shapes and sizes, including a bright red Cheez-It box, from a shelf and dropped them into a bin"(Burrington, 2016). Rodriguez claims that this type of robotic technology will not be able to reach the same level of human interaction with products in the next few years, but now "we can create value"(Burrington, 2016) by continuing to test out the limits of the current technology available. Presently, Amazon "has been adding about 15,000 robots year-on-year, based on multiple reports. At the end of 2014, Amazon said it had 15,000 robots operating across 10 warehouses. In 2015, that number rose to 30,000, and now Amazon has 45,000"(Shead, 2017). As elucidated by these statistics, automatic advancements in Amazon's production system are increasing at an exponentially fast rate. Amazon's robots are controlled by humans through digital space hidden within a physical mass; a digital command is made by a physical human to the physical robot, in turn the digital command is carried out by the physical robot. This fluid interchange between a human hand and a robot hand has thus altered our previous notion of a workplace. As mentioned earlier, the Amazon Roomba-like robots are using QR codes to understand where to physically move. The digital data designates what types of packages are on the shelves and where they are physically going.<sup>5</sup> There is a constant transformation of information between the digital space and the physical space. This bounce-

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<sup>5</sup> Check Bibliography for a linked example of the online, *Business Insider*, article, "Amazon now has 45,000 robots in its warehouses" for more information about the QR codes.

back between two different spaces within one place, i.e. the efficient-based inclusion of robots among associates within Amazon, is indicating our future place— and the balance won't be in our favor.

Has this apprehension of total automation been an issue throughout history? Before and during the Industrial Revolution, the Luddites warned about machines stealing their mostly blue-collar jobs. Throughout the '20's and 30's, the uproar of the working class continued; the investor and economist John Maynard Keynes introduced the term technological unemployment. In the '40's, the New York Times referred to the anxiety of the loss jobs, due to total automation within the workplace, as an old argument. This argument has remained old and will continue to be labeled as such. Parallel to the passing of time, the hope for an efficient future, along with its automation threats, is becoming a possible reality. Currently, in “a widely noted study published in 2013, Carl Benedikt Frey and Michael Osborne examined the probability of computerization for 702 occupations and found that 47% of workers in America had jobs at high risk of potential automation”(“Amazon now has 45,000 robots in its warehouses”, 2017). Within this study, they concluded that not only would jobs such as taxi drivers and security guards be replaced by machine automation, but also positions such as cashiers, mechanics, counter clerks, and accountants would be joining the switch. Within The Economist article, the phrase job polarization is mentioned when referring to the decline of middle-skill jobs, such as factory positions, and the increase of both low-skill and high-skill jobs within the Western world. This creates a large gap; the

high-skill workers are earning more money, and the low-skill workers are continuing to receive less. How many years is it really going to take for Amazon to fully automate their Fulfillment Centers? Further, would only corporate and research positions be held by humans?

#### Impacts of veil: work conditions, housing market, and environment

Due to the high stress associated with the modern work environment and the current demand for efficiency within the workplace, multiple Amazon associates have been extremely vocal about their work conditions and environment. In an interview, within an article from the online journal *TheStreet*, an Amazon warehouse associate and ambassador from New Jersey, revealed that employees work over 10 hours a day are not paid for their 30 minute lunch break. And continues to state, "People are focused on how much their feet, legs, backs hurt them from the strain"(Rittenhouse, 2017). There are other multiple types of accounts within the Amazon fulfillment centers and the corporate offices as well. For example in the *New York Times* article, "Inside Amazon: Wrestling Big Ideas in a Bruising Workplace", the authors stated that, "At Amazon, workers are encouraged to tear apart one another's ideas in meetings, toil long and late (emails arrive past midnight, followed by text messages asking why they were not answered), and held to standards that the company boasts are 'unreasonably high'"(Kantor, Jodi, and David Streitfeld 2015).

Within the article, it continues to paint a picture of a very intense and unforgiving environment where “You walk out of a conference room and you’ll see a grown man covering his face,” he said. “Nearly every person I worked with, I saw cry at their desk”(Kantor, Jodi, and David Streitfeld, 2015). If these are the conditions employees are exposed to and have to endure to keep their positions, what are the conditions within the companies associated with Amazon— are their working conditions swept under this veil as well?

One of the major issues around the U.S., especially the Bay Area, is the housing crisis. As mentioned earlier, the e-commerce giant Amazon has quite a few buildings around the Bay Area. Their newest construction, located in the East Bay, has already been the cause of rent and industrial market increase. Stated in an article in the San Francisco Business Times, “In the second quarter, the East Bay industrial market saw rents increasing 13 percent year-over-year to \$10 per square foot, with 17 consecutive quarters of growth, according to brokerage Kidder Mathews”(Li, 2016). The market is clearly increasing due to the need of warehouse space over office space in the East Bay. As a San Francisco resident, the price of housing is already ridiculously high all over the Bay Area. There are homeless pitching tents on sidewalks, under freeways, and taking over parking lots. Within these spaces, piles of trash and broken car window glass are clustered together on the side of the road, human feces is commonly scattered along the sidewalks, and the interval whiffs of this recognizable pungent smell occur too often while walking down the street. These people who are displaced due to housing costs, along with other gentrification issues, are creating their own space within their lost place. This



condition is exacerbated with the arrival of booming tech companies. Similar to the outcome of the loss of middle-skill jobs, the gap between the rich and poor residing in the same area is growing. Where there is rapid increase of wealth, there is rapid decrease of wealth— this elimination of an economic middle ground due to the high living reinforces the disparity in the economic status of the residents of the Bay Area. Not only are people losing their homes, store-based retailers are losing their value and becoming too much of a hassle compared to e-commerce sites. Stated in an article on CNBC, “Wal-mart, Costco, Home Depot, Target— [are] seen as losing market share as their margins shrink and dollars shift back to Jeff Bezo’s company,”(Thomas, 2017). Amazon still has these middle-skill warehouse positions, which are affiliated with human courier services, but when the need for capitalistic efficiency outweighs the need for their human associates, the economic status gap will continue to widen.

The amount of electricity needed to run large Amazon warehouses, the transportation vehicles’ gas and carbon emissions, the various cardboard boxes, the filling inside, and the tape used to secure the packages, are just a few factors that impact the environment in a negative way. One wouldn’t think that Amazon’s processes are detrimental to the environment based on their website. Amazon has a page outlining how they are eco-friendly and involved in research of renewable sources of energy. Within this slew of information provided, they explain how they now offer Frustration-Free Packaging<sup>6</sup>, which refers to the exclusion of the

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<sup>6</sup> Refer to the link in the Bibliography for more information about Amazon’s *Frustration-Free Packaging*.

airtight plastic packaging often found encapsulating children's toys and headphones. The name even alludes to the convenience of the consumer, not the more pressing environmental impacts. A report from the Moore Recycling Associates wrote, "...in 2015, consumers recycled less than 7 percent of all plastic films and wraps. And, in 2013, the average recycling rate of all packaging (excluding compost) was less than 25 percent, according to Resource Recycling Systems"(Sottile and Jo Ling, 2017). Even with its high popularity among the consumer market, Amazon does not release its carbon footprint information. But it is known that, Amazon fulfilled more than 1 billion orders in 2015. Cardboard packaging is the largest factor of human made waste, which contributes to global warming. In San Francisco, they have multiple recycling and reuse centers, such as the Recology Centers. According to a NBC news article, "Every day, Recology collects approximately 625 tons of recyclables, including more than 100 tons of cardboard at their "Recycle Central" plant on San Francisco's Pier 96"(Sottile and Jo Ling, 2017). The authors describe how the brown cardboard boxes are mainly coming from domestic sources, such as large apartment complexes instead of retail and grocery stores. Within the last few years, workers at the plant claimed they have seen "...'a pretty significant change. We see these changes pretty regularly in the recycling stream. But this is a big one,' said Reed"(Sottile and Jo Ling, 2017). They have also stated how the quantity of cardboard received is similar but the amount of recognizable Amazon boxes and packaging has increased. The scale of waste-generation has been increasing and unfortunately the amount of products that are unfit for recycling at the center are increasing as well. This growth is due to the convenience of online shopping, where you can even

have your groceries delivered to your door.<sup>7</sup> In general, people are veiled from the existence of pollution and excess waste in the environment. A company like Amazon, who preaches that their methods and products are eco-friendly, is just masking their damaging impacts on the environment through the advertised convenience of the consumer. Designers and artists have the opportunity to aid this process and help poke holes in this veiled issue.

Still referencing Amazon as a recognizable and common example of a highly integrated digital consumer database, the next section of this essay mainly discusses the want-for-efficiency veil and its impacts on morality, identity, alienation, and the utopic real within the greater context of society:

#### Want-for-efficiency veil

Due to all of these factors outlined through the modern day consumer example of Amazon's processes, the need for efficiency is the driving force of these veiled issues, publicly realized and

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<sup>7</sup> Within the same article, it has been noted that the ice packs included in food packages cannot be processed at the Recology centers. Recology advises its customers to aid in the process of recycling by breaking down cardboard boxes to create more space in the plant and to be aware of what can be placed in the recycling bin. For more information about the article, "All That Online Shopping Has Cardboard Consequences", refer to the link in the Bibliography.

unrealized. The aspiration for efficiency is as old as mankind; the phrase technological orthodoxy<sup>8</sup>, coined by cultural historian Jennifer K. Alexander, is the belief that everything should be efficient. There is a public-wide veil over the impacted places and spaces. This metaphorical veil is formed by the utopian desire for efficiency within society's demanding consumer driven market. Some of the issues that are being overlooked include, the lesser known impacts on the environment by the e-commerce process and the physical space the Cloud inhabits.

Currently, societies around the world are embracing an ever-growing capitalist social order. These consumption-driven societies thus feed off the mass' reliance on the digital consumer market and the overarching vision of a technologically efficient future. In response to this, digital consumer sites like Amazon are constantly advancing and changing based on the convenience of the consumer, as well as a potential for capital gain.

In contemporary culture, change is the only constant. In the current capitalistic culture this change relates to the aspiration towards a better life, which correlates with the drive for efficiency, advancement of technology, and ease in life. It can appear as one becomes more financially stable, a more leisurely life is achievable. But like Alice, in *Alice in Wonderland*, running just to stay in the same place, this leisurely life is rarely obtainable. For example, one can expect their collection of outdated technology, like smartphone and computers, to grow with time and need to be replaced. Our present has the potential to set up a cushy and technologically-rich future with a promise of short work days and a

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<sup>8</sup> For more information about the term and the journal entry *The Mantra of Efficiency: From Waterwheel to Social Control*, please refer to the Bibliography.

life of leisure. Capitalism has provided that hope for some, and is keeping the flame lit by creating a dependency on, and desire for, efficiency and advancement.

### Introduction of society's morality issue

Details about Amazon's processes and information regarding the company's impact on society and the environment are made available to the public. Yet, why do multiple people choose to accept it without question? The impacts that efficiency-fueled organizations, like e-commerce sites, have on workers, the surrounding community, and the environment are written about and posted all over newspapers and online articles. The finish line, represented by a technologically advanced and efficient future, is more appealing than the race or the process of getting there. How does morality coincide with the want for efficiency throughout this transformation? Can this already influenced society move, morally and transparently, towards this imagined, promised, and inevitable efficient future place?

### Morality vs. Efficiency

Society as a whole frequently visits and utilizes sites like Amazon even though there are public records of the mistreatment of workers and no public records of its carbon footprint on the

environment. An individual may think that if there is a little evil within the good, to a degree, it's socially acceptable in their eyes—unless it impacts them directly. This consumer's view on the moralities of Amazon's processes is skewed by the veil that capitalism produces. Under this veil, capitalism guides society to see the end game, rather than care about the environment, mistreatment of workers, or the impact on local economies. This veil also obscures the fact that global warming is partially caused by human-made/influenced pollution. The question still remains, how does morality play a part in the want for an efficient future?

Within the capitalist drive for efficiency, increased productivity, and mass automation, the role of the worker and the impact that it has on the worker is not taken into consideration. Should the goal of efficiency have the power to override moral issues in order to move forward in this capitalistic world? Where does one draw the line? Many nations have been fortified by immoral actions, such as outsourcing cheap labor. In the future, are people going to continue to accept that many suffered to get to a point of contentment? Could contentment ever be reached?

The transformation of roles within a place, alienation from the work and the body, and the question of an utopic real

To dissect Marxist Theory of Alienation<sup>9</sup>, he wrote about how there are four stages of alienation within the semi-automatic life, which apply to the transformation of physical human work to digitized machines. First, the worker is alienated from his act of labor on a specific product. With all of the digitized machines out there within the workplace, the common worker is disassociated from the process of producing the product. The products the worker is creating are not for themselves, but belong to the capitalist workplace. Second, the individual worker does not have the control over the capacity of work, the amount of products produced, or the timeline of production. Higher-up management and CEOs oversee other workers and production, but the capitalistic system creates the true commands and needs— which, in this digital world, is just a cluster of digitized percentages and numbers. Third, the worker is personally removed from the work and placed under constraints, prioritizing capitalist labor over personal creativity or choice. Fourth, workers are commonly focused on individual tasks or assigned specific workers to collaborate with, and often have no voice in the matter. Workers are removed from other workers, based on management-structured work habits, which results in limited personalized interaction. These stages of alienation reinforce the notion that capitalism has no room for individualism; it thrives on labor, and thus, only values the product and its revenue.

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<sup>9</sup> For more information about the theory, refer to *Marxist theory of alienation*, citation found in the Bibliography.

Today, the workplace, as a place occupied solely by humans and functioning without the help of digitized infrastructures, rarely exists. With the importance of the human worker decreasing, and the rate of automation within a workplace increasing, when would fully-automated labor occur? When would the definition of a workplace mean programming machines to do all actions; alienating physical human presence. Is it possible that everything in life can be dependent on a set of codes and algorithms? Would it reach physical consciousness— somehow creating a digitized consciousness? If this is possible, the alienation of one's consciousness from one's own body could perhaps occur. Within this digitized consciousness, is there free thought or programmed simulations of it— would this be the supposed utopia or prison? What would be real?

Before attempting to poke at those questions, the definition of the real must be discussed. The French philosopher and sociologist, Jean Baudrillard, explored how images, signs, and symbols relate to what is real within contemporary society. In his book, *Simulacra and Simulation*<sup>10</sup>, he wrote how the real is no longer real, and what we know of reality is actually a simulation of the real. Simulacra is a Latin word meaning the mimic of works of art, such as the reproduction of the images of religious figures. The images, signs, and symbols of culture and media within the contemporary culture and society are what replaced reality. These copied images take on a new reality, which Baudrillard refers to as hyperreality or hyperreal. The hyperreal, in a physical and present sense, is more real than the real it is representing; it insinuates and

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<sup>10</sup> Refer to the Bibliography for more information about Baudrillard's book, *Simulacra and simulation*.



precedes the real. Within the text, Baudrillard draws a parallel between a fable derived from the work of Jorge Luis Borges describing a map that was created by a great empire; it was extremely detailed and accurate. As the Empire gained and lost territory, the map mirrored the gains and losses. Like all great Empires, it fell and all that was left was the map outlining the territory. Baudrillard interpreted this map as the simulation of reality, with reality becoming degraded as time goes on.

Baudrillard also speaks about imaginary stations, which in this contemporary society could act as amusement/theme parks or even the city of Los Angeles. Within these parks there are notions of fantasy places, simultaneously existing outside of the park without space or dimension, as in someone's imagination. When Los Angeles comes to mind, many people would automatically associate it with Hollywood or Universal studios. The land of celebrities, plastic surgery, and fantasies of becoming famous run the place. Which is rather different than the examples of San Francisco and Silicon Valley, where the cities are composed of tech giants and startups. These mentioned hyperrealities act as a space within the ultimate real place— a past reality. Speaking more about the technologically hyperreal space that is created within the Bay Area, the representation of the physical is now digitized. How is the potential of AI considered within the digital perceived space? How does the imagined integration of AI into society relate to the promise of an efficient future?

## Transferral of reality, potential of AI, and consciousness vs. identity

Imagined places start in the mind, then transform and develop into physical spaces, and are finally realized in a physical and/or digital form. Today, digitally imagined spaces can occur in the form of movies, Photoshop drawings, even computer code. Physical work has to be performed in order for a form to be produced. Imagine if one day technology could upload consciousness onto a digital platform or consciousness itself could be created digitally— would there be a means for a physical human form to help achieve and perform tasks? If that were the case, would algorithms replace free thought? Would free thought soon become a reality that is slowly disappearing? What would become of society and politics? Consciousness exists within a physical place, such as a human being; when it's removed from its place, would the digital space be the new reality? What would happen to humans? Would they cease to exist? If consciousness can exist within an efficient and potentially utopic place, does it undermine the identity of the individual who has control of their own mind, morals, and decisions?

If the transferral of consciousness to a digital space and creation of consciousness can occur, AI would be operating the system. The advancements of AI are inevitable. Currently, the possible ramifications are being discussed widely in scientific journals and reported in the press. Unfortunately, governments have not yet formulated a plan to address these possibilities. Murray Shanahan, author of the book *The Technological*

Singularity<sup>11</sup>, wrote about the destiny of the human species within an advanced technologically-driven world. He explains how the invention of AI will spark a rampant growth of technology, which in turn would threaten human civilization. Shanahan urges people to think about what the potential positive or negative possibilities of AI can look like in the future, and what a realistic utopian future would look like.

In his book, *Life 3.0: Being Human in the Age of Artificial Intelligence*<sup>12</sup>, Max Tegmark writes about the AI apocalypse and how it will shock society. He warns that people in power must be weary of its capabilities— its potential harm to the job market, warfare, politics, and the human way of life. The Guardian posted a review of the book, by Yuval Noah Harari, in which he calls out how “...we should remind ourselves that a surveillance system— one that constantly tracks people and uses Big Data algorithms to analyze their behavior and personality— can destroy our privacy, our individuality and our democratic institutions without any need for Terminator-style killer machines”(2017). Where this statement may seem far-fetched and paranoid to most, if you fast forward a few decades to a society where AI is embedded in multiple mechanisms, paranoia becomes the reality. Both, Tegmark and Shanahan, discuss how once an algorithm understands more about an individual than they do themselves, the free market, democratic elections, and other societal intuitions will be obsolete. This can bring upon the danger of losing one’s own identity and free

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<sup>11</sup> For more information about Shanahan’s book, *The technological singularity*, refer to the Bibliography.

<sup>12</sup> Refer to the Bibliography for more information about Tegmark’s book, *Life 3.0 being human in the age of artificial intelligence*.

thought as a human. AI will know one's mind better than they can know themselves; why not allow it to vote in one's place or decide what career path to take? Is it possible for free thought to develop within an AI simulation?

Ultimately, this integration will allow the decision making to shift from humans to digitally computed algorithms. Data-collecting surveillance systems can be recognized under the names Apple, Facebook, or Amazon. Data collection, the spread of automation, and the reliance on technology are all currently occurring. Harvested data may very well be available to AI companies and contribute to "an apocalypse by shopping" (Harari, 2017). Sites like Amazon are just contributing to the infinite information directory of the ultimate efficient potential technology: AI.

Efficiency driven utopias would be considered a hyperreality to Baudrillard, but are there multiple levels of the hyperreal? Can the real transform into its parallel hyperreality? If one of the versions of this supposed utopia turns out to be a digital space where human consciousness is uploaded onto a program that simulates real life, is the real human consciousness in its human form or is it digitized? Then again, does consciousness even hold mass itself? Not to neglect the fact that the storage needed for this situation to be possible would need to take up physical space. Within John Kelsey's essay, "The Self-Employment Rate", he mentions Marx's idea of the *tagwerk*: the amount of space an individual can work in a day.<sup>13</sup> Materialist philosophies are dependent on real space, thus there must be real space for work

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<sup>13</sup> For more information about Kelsey's essay, *Rich texts: selected writing for art*, please refer to the Bibliography.

and capitalism to exist. When focusing on the sheer volume of the amount of mass that digital storage is capable of is mind-blowing and can appear endless. Can that infinite digital space and capitalism exist within it? The amount of energy needed to run this would be unimaginable; unless AI can figure how to become self-sufficient. In this context, life will be alienated from its physical form; and transferred to another with no mass in order to exist in this imagined utopia.

Presently AI is not at the level for any of this to occur, but some of its effects are already apparent, and it's developing at a very rapid pace. Currently, our society functions under a capitalistic framework. Within capitalism, the want for efficiency is the ultimate goal— next to making money, of course. More money, more leisure, and more efficiency. To repeat our example, Amazon represents an ubiquitous contemporary impulse to use efficiency, user-friendliness, and attraction as appealing guises to cloak its iniquitous capitalistic motivations. The more technologically advanced Amazon is becoming within their management, software, processing, delivery, and labor systems, the more efficient they become. These technological and efficiency-based progressions thus disguise their capital-driven motivation by appealing to the consumers' desire for efficiency— no matter how it impacts the environment, local economies, or workers. The reason Amazon is so successful is the perfect example of how society relies heavily on instant gratification, constant improvement, change, and, most importantly, consumption. If society continues to operate to this degree of greed, consumption, and digital dependency, the future will require the removal of identity and free will in order to be super efficient.

Concluding thoughts and statements:

These questions can only remain unanswered as of now, but creating awareness of the want-for-efficiency veil and the impacts of it, and recognition of the further development of AI will act as the first step toward acknowledging a probability of total automation, loss and alteration of individual identity, and free will. The acceptance of this possibility, is the first step in planning for the future.

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