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Senior Project in Economics

**Digital Capitalism: Our New Capitalist Economy and How
We're Silently Being Exploited**

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ABSTRACT

We are currently in the midst of an evolutionary shift in our lives where we are heavily infiltrated around technology and the internet. As a society, we have emerged our economics, politics, markets, and culture into this technological realm. The internet has become a platform where businesses, corporations, and consumers co-create value for capitalists in order to maximize their profits. Digital capitalism is a new capitalist economic system that re-invents the roles of consumers and producers and their relationship with one another. In analyzing how consumers have adapted their role as both consumers and producers (prosumers) in the economy of the web internet, I will explore the ways in which digital capitalism conceals the exploitation of its consumers (prosumers) under the guise of self-expression and prolific growth by analyzing the market model, history, theories, and concepts of the traditional and digital capitalist economic system.

INTRODUCTION

In February 27, 1995, scientist Clifford Stoll released an article with 'NewsWeek' on why the Internet will fail 'and will never be, nirvana'[1]. Stoll argued that the vision people had for our communities and societies to coexist in the cyberspace was unrealistic due to a lack participation in users and excess of unfiltered data and sources [1]. Today, the Internet puts that article to a humiliating contradiction as it has exceeded the expectations towards how successful it has become to our world. As a society, we are immersed on the Internet as we have fully integrated our economics, politics, markets, and culture into this digital realm. The economy of the United States is formally known to be capitalist, however; the influence of the Internet has affected the way in which we work, produce value, and interact with one another. This has caused our economy to be reintegrated into a digital platform capitalist economy.

The Digital Platform economy is a system where economic and social activity are exchanged through digital information in data networks between producers and consumers. It is, "a formation that intersects on the one hand with the postmodern cultural economy (the media, the university, and the arts) and on the other hand with the information industry (the information and communication complex), [3]. The traditional capitalistic system in the United States was dominated by production, especially in the Industrial Age and then, dominated by consumption, with the introduction of shopping malls. The digital capitalistic system, however, is dominated by the interrelationship of both production and consumption which gave birth to the concept of '*prosumption*'. Prosumption occurs when an individual is performing both as a producer and consumer of a capitalist economy. Prosumption serves as 'a way of producing goods and

services that rely entirely on self-organizing, egalitarian communities of individuals who come together voluntarily to produce a shared outcome' [4]. Prosumption was first seen in our physical world economy but has evolved and made way into our digital economy. This is seen especially in its coexistence with the first cycle of the Internet (Web 1.0) that lasted from 1989 to 2005 and the second cycle (Web 2.0) that has been ongoing since 2005, [5].

Because the internet protects its users under the political philosophy of cyberlibertarianism, users in the United States have the legal right to access a free internet with no censorship or government regulation. This resistance has made it difficult for businesses and corporations to perform as capitalists in the digital economy because it limits the techniques and routines they have created in order to attain and maximize their profits. Eventually, capitalists have manipulated this economic system where prosumers produce the material profits of the capitalists but are paid no material wages in return which, according to a Marxist perspective, is infinite exploitation [6]. Capitalists are able to get away with this because the material labor that we produce for them is the same labor we enjoy producing for ourselves as users of their networks and platforms. Because of this, the ways in which are exploited as users in the digital platform economy are concealed in plain sight.

This research paper seeks to evaluate the ways in which we are materially exploited as users under the digital platform capitalist economy by analyzing how we blindly coexist as both consumers and producers in this system. In order to conceptualize this outlook, we must understand how we got to where we are by analyzing the traditional consumer and producer economic model with the help of Marxian theory. It is important to analyze the history and

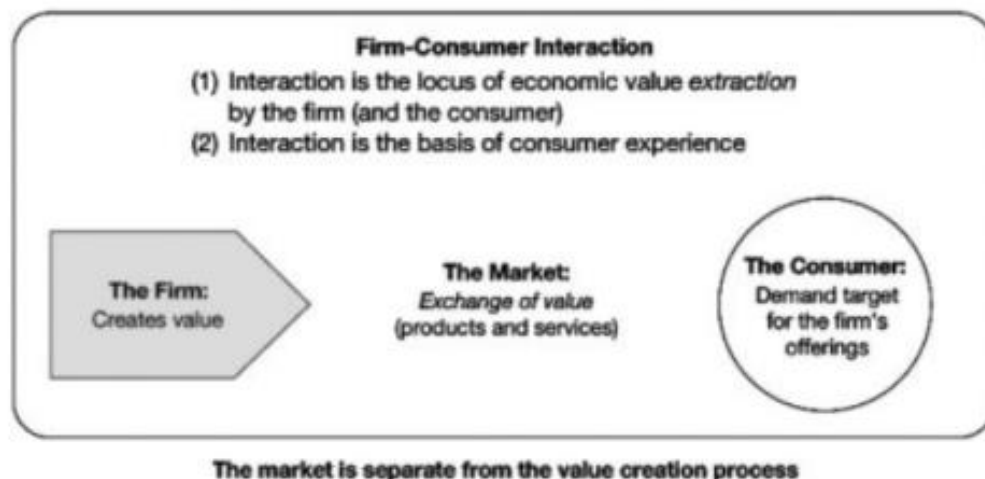
evolution of ‘prosumerism’, and the actions and consequences that are part of the coexisting relationship of capitalists and prosumers under the digital platform capitalist economy. By analyzing the lawsuit that the German Federal Cartel took against ‘Facebook’ and the lawsuit that the volunteers of ‘AOL’ filed against the company in the 1990’s, we are able to view how there has been prior awareness and attempted protection towards the exploitation of prosumers in this system. In doing so, this highlights the significance and severity of the topic that this research paper proposes.

A. Part 1: Traditional Consumer and Producer Economic Market Model versus Prosumer Economic Market Model

In order to understand the economic system in which a prosumer inhabits, one must understand the traditional capitalistic economic model and its relationship between a consumer and producer. The traditional capitalist economic market focuses on the exchange of goods and services between a producer and a consumer. The relationship of a producer and consumer under this system occurs when the producer offers the consumer a good or service (raw materials) in order to obtain economic value in return. In the early years of the capitalist economy during the Industrial Age, the role of production, especially through factories, was of greater necessity in order to keep this model at balance. It wasn’t until more recently in our economy, that the role of consumption became the greater necessity to keep the economic model at balance [5]. This shift occurred with the introduction of shopping malls in American society around mid 1900’s and the

burst in production of consumer goods after World War II (automobiles, refrigerators), which caused consumers to spend more than what they had to. After the Ford regime in 1973, the capitalist economy depended on constant innovation and product development in order to sustain itself. Consumption depended on a rapid turnover of goods and producers had to make themselves flexible enough to stay ahead of their competition in order to deliver to the consumer [5]. This caused for fast-paced markets and competition in the American economy because without these goods or services being produced at the rate demanded, the creation and exchange of economic value between producers and consumers would disintegrate, causing the system to fail. This supports the Marxist theory that production is preeminent to the capitalist economic system [5]. In 2007, however; production and consumption both declined as a result of the Great Recession that took place from late 2007- 2009 which caused for the emergence of the prosumer culture.

Figure 1: The Traditional Concept of a Market



Source: Prahalad and Ramaswamy (2004)

Unlike the traditional capitalist economic market, the prosumer economic market occurs when an individual is both, a producer and consumer, of the economic system. Prosumption involves the equal influence of production and consumption in which a producer consumes raw materials, and a consumer produces raw materials instead of focusing on one or the other, under the control of the capitalist. An efficient example of prosumption is a member of 'Amazon' who sells their goods to others. This is because while they are producing goods and services to others but, by being a member, they are also a consumer because they purchase goods from the company website as well from other members. This prosumer is under the control of the capitalist because the capitalist, Jeff Bezos, owns the platform in which the member can coexist as both a producer and consumer. Examples of prosumer culture include online shopping, 'Airbnb', social media, 'Uber', self-checkout, etc. Prosumption has allowed for capitalism to evolve and expand because prosumers are a part of a new 'wikinomic' model in which businesses and corporations are putting consumers to work [4]. Prosumer and digital capitalism hold characteristics that are unique from traditional capitalism. The first one being that capitalists are unable to control prosumers to the degree that they wish to as opposed to the ways they have been able to control producers and consumers in a traditional capitalist market economy [5]. For example, Brian Chesky, the CEO of Airbnb, cannot propose the number of times in a year a house owner can decide to put their home for open reservation in his platform. In the prosumer economy, there is little to no monetary exchange between the prosumer and the capitalist due to the capitalist's unwillingness to do so [5]. Even though a Twitter user with thousands of followers can bring heavy engagement (which brings more revenue) to the social media platform, they are highly unlikely to get monetary compensation for their labor from the platform all while the platform is

gaining monetary compensation due to the user's labor of creating content and engagement for the platform. The final characteristic of a prosumer and digital capitalist system is that the exploitation of prosumers is contradicted by the fact that prosumers enjoy the role that they contribute to this system and sometimes willingly devote long hours into being prosumers with no pay [5]. Even though it is true that a Facebook user can love posting pictures and spend hours talking to their friends through the platform, it is to say the least that people can love their jobs under a capitalist system and still be exploited because, in actuality, many are not aware that they are being exploited.

Figure 2: Transformation of the Relationship Between Capitalists (Firms) and Consumers

TABLE 2	Transformation of the Relationship Between Firms and Consumers
FROM <ul style="list-style-type: none">• One-way• Firm to consumer• Controlled by firm• Consumers are “prey”• Choice = buy/not buy • Firm segments and targets consumers; consumers must “fit into” firm’s offerings	TO <ul style="list-style-type: none">• Two-way• Consumer to firm• Consumer to consumer• Consumer can “hunt”• Consumer wants to/can impose her view of choice• Consumer wants to/is being empowered to co-construct a <i>personalized experience</i> around herself, with firm’s experience environment

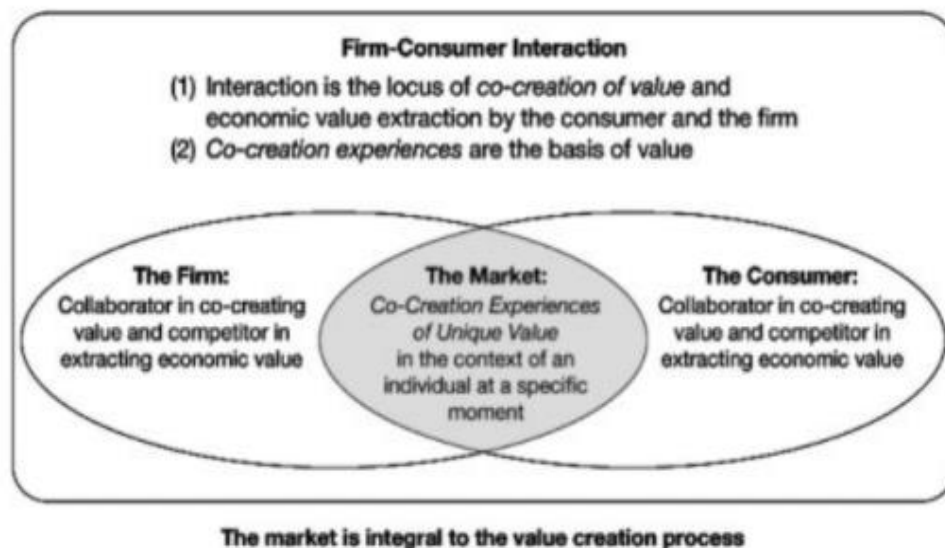
Source: Prahalad and Ramaswamy (2005)

In order for capitalists to maximize their profits in a digital capitalist economy, they must *co-create* with prosumers in their platform to drastically reduce their cost of production. Co-creation allows the prosumer more freedom and liability to maneuver themselves how they wish to in a platform as capitalists increase engagement and place less restrictions towards them, which allows for a more optimal personalized experience. Capitalists then extract and analyze data and

statistics from the prosumers experience in their platform and use it to modify and enhance their platform. This allows for efficiency and comparative advantage in a business or corporation as capitalists save development time, lower their costs, and reduce their risks in the competitive economic market [7]. For example, instead of hiring writers to publish articles in their platform, ‘Wikipedia’ allows its own users to write, edit, and publish articles throughout the platform. While reducing the cost of labor, Wikipedia also becomes more efficient and drives more revenue to the company as it allows more users to access and publish their service which lowers the competition due to increased engagement. In order for co-creation to persist, it “demands that both managers (capitalist) and consumers (prosumers) make the necessary adjustments. The interaction between the two (locus of value creation) must be built from access and transparency,” [7]. This means that the less restrictive and the more educated a user is towards access to a certain platform, the more they will engage in that platform which increases the value of the platform. The more that co-creation allows for engagement in the community of a platform which increases its value, the more *abundant* are the goods and services that the platform produces. Abundance is the relationship that describes the decrease in cost that it takes a business or industry to produce a good or service in relation to the increase of its market [5]. Having abundance means having no scarcity in a market which means that abundance cannot exist in traditional capitalist economic system. In order for a business or industry to make profit in a traditional capitalist economic system, it would need to limit their inputs in order to reduce (operating) costs [5]. For example, a clothing store in a shopping mall cannot run 24 hours, 7 days a week because the cost of labor to hire cashiers, security, stylists, managers, etc. would eventually outweigh or lower the profit made in revenue. If that same clothing brand had an online store, the cost of input would lower significantly because there would be no need for

operational costs like a cashier, stylist, manager, and even costs for rent/utility bills for the store maintenance. It is important to know that due to this, a digital capitalist economic system *cannot* exist without prosumers: without prosumers, abundance cannot exist for the capitalist to create sufficient input towards the digital market. This is because prosumers don't get paid for their labor and contribution towards the digital market. If they did, capitalists would have to limit the number of inputs they put towards their businesses because they are now paying for that labor. If they don't make enough profit or fail to meet the standards and demands of the consumer, they will eventually fail as a business.

Figure 3: The Emerging Concept of a Market (Prosumer Model)



Source: Prahalad and Ramaswamy (2005)

A.Part 2: Marxist Theory of Exploitation in Digital Capitalism

Abundance cannot exist without prosumers in the digital capitalist economic market. Marxian theory emphasizes how prosumers are being exploited under this economic system by producing surplus value. In the works of 'Capital', Karl Marx explores the accumulation of capital in a capitalist economy. Marx states that capitalists buy labor power and means of production (materials) to produce and sell commodities in order to make monetary profit. In the process of production (sphere of production) in which a good is produced, the accumulation of capital means that the surplus value that was produced is either reinvested or capitalized. Under Marxian theory, surplus value is the difference in what the laborer produces in a labor process under the command of capital and what labor acquires as its labor-power as a commodity [8]. Because of abundance, Marx considers prosumers as surplus values because they are producing an excess of inputs that increases a firm's value in capital. Because capitalists do not pay to produce surplus value, surplus value is considered as unpaid labor.

Figure 4: The Sphere of Production and the Accumulation and Expansion of Capital

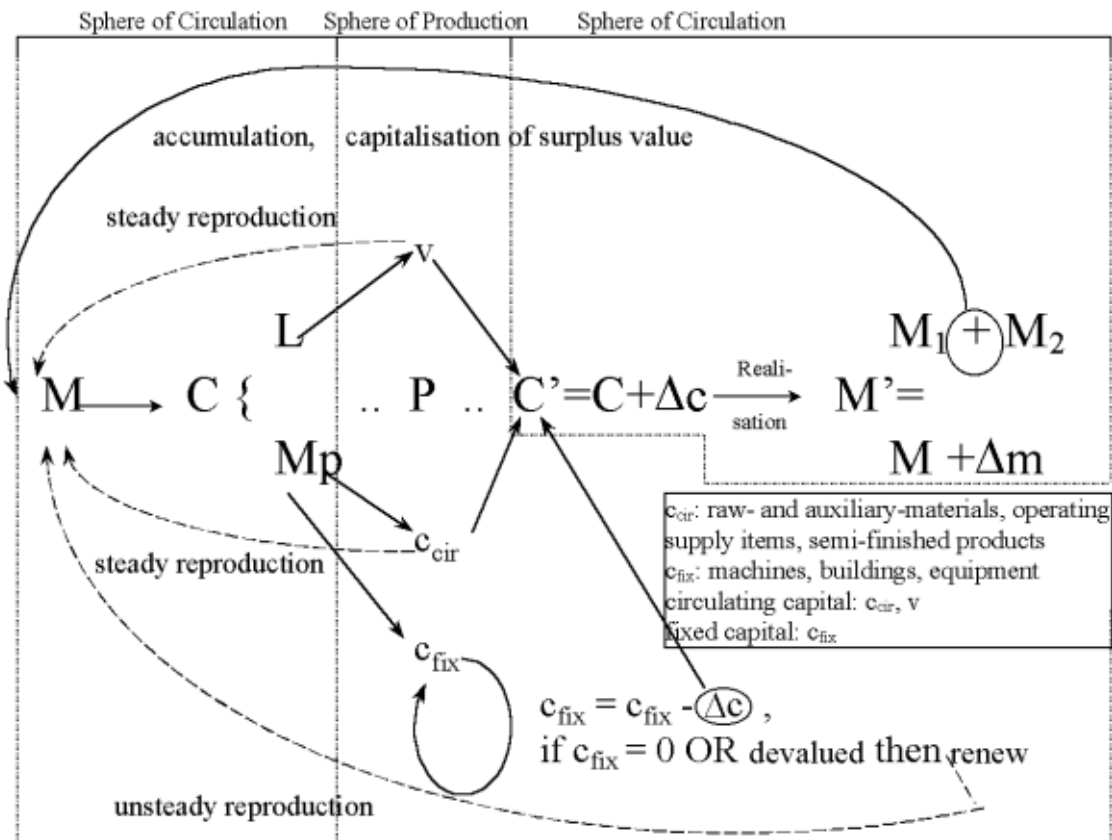
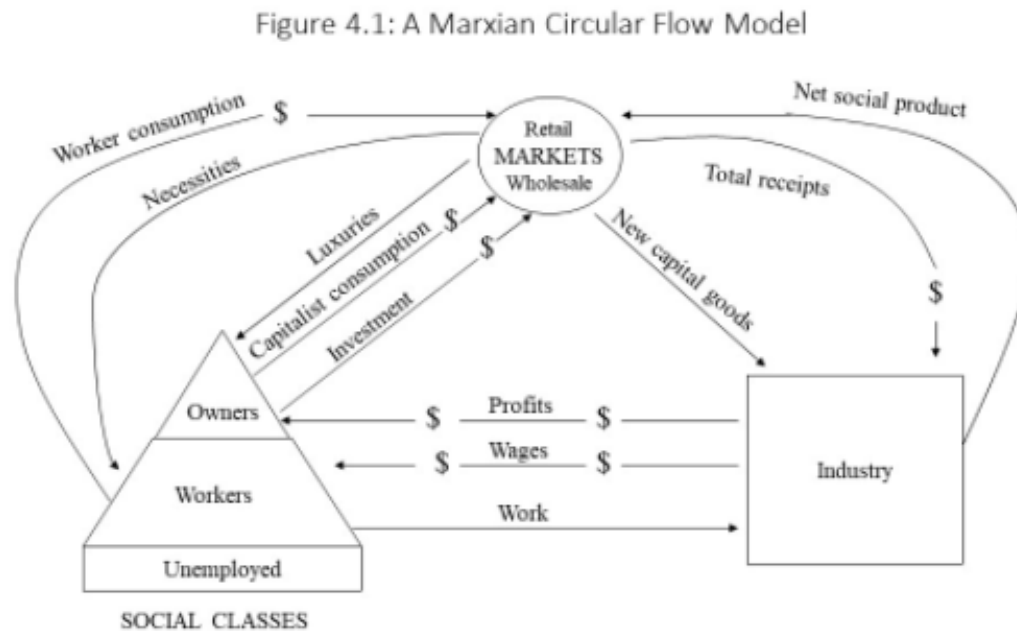


Figure 1: The accumulation/expanded reproduction of capital

Source: Fuchs, Christian (2012)

Marx states that, “capitalism is based on the permanent theft of unpaid labor from workers by capitalists,” [8]. Because of this, he considers the production of surplus values as exploitation because the production of surplus values eventually goes under ownership of the capitalist even though it was the worker who produced it. Marx enforces this reasoning by emphasizing how surplus value, “costs the worker labor but the capitalist nothing, and . . . becomes the legitimate property of the capitalist” [9].

Figure 5: Marxian Theory Model on Class Exploitation



Source: Nell, Edward J. (1972)

A. Part 3: The Presence of Prosumerism in the Physical and Digital Economy

Although prosumers are heavily based in the digital capitalist economy, they are also evident in the physical and traditional capitalist economy. Quite frankly, the age of Prosumerism started as early as the mid-1950's after the introduction of the fast-food industry [9]. Capitalists and prosumers gained advantage to the manifestation of prosumerism in the traditional capitalist economy because as the satisfaction rate of the prosumer increased, the profit rate of the

capitalist also increased. Let's take the example of a prosumer and capitalist in the fast-food industry. The fast-food industry strives to assist a customer in the fastest way possible which means that most of the time, the customer would have to finish the service that they paid for themselves. This, however, brings satisfaction to the consumer because this service includes do-it-yourself/ personal customization towards their order. This includes things like, picking or mixing their own fountain drink, deciding how many napkins they want to take with them, or ordering their meal through self-checkout. The more options and preferences consumers are presented with in their buying experience, the more content they become with the company. Simultaneously, the company becomes satisfied the more a consumer can self-assist their service because it means that their workers spend less time assisting a customer and/or being in the workplace. This allows for the capitalist to reduce labor quantity and hours which maximizes profit as less money is spent towards production costs. Other examples of prosumerism in the physical and traditional capitalist economy include but, are not limited to: pumping one's own gasoline, building DIY furniture that you purchased, using the A.T.M instead of going to the bank teller, going to a buffet, etc.

B. Part 1: The Presence of Prosumerism in Web Evolution

The commencement of the World Wide Web evolution began in 1996 which allowed for communication between different cultures, industries, and markets to occur in the digital sphere. The evolutionary phase of the World Wide Web is broken down as 'Web 1.0', 'Web 2.0', and so on (the further we go down the phases, the more technological it becomes). When society shifted from Web 1.0 to Web 2.0, this allowed for prosumers to further integrate their existence into the

digital platform and its economy. Web 1.0 began in 1996 and lasted until 2005. It existed five years before the ‘dot-com’ bubble burst and the content produced in this web sphere was provider-generated only and mostly accessed through subscription [5]. This meant that there were more restrictions, less freedom, and a lower population in the exchange of goods, services, and communication between users of this community. Web 2.0 initiated after 2005 and established and adapted faster connectivity speed, high-speed broadband connection, existence on other mobile platforms and internet-capable devices, published content generated by users (self), and abolished its hierarchal system which allowed for more freedom and engagement [10]. Web 2.0 serves as a great example of positive innovation through co-creation between businesses and corporations and its prosumers. The digital market allowed for businesses and industries to exist in the new web sphere where the consumer has more fluidity for collaboration. As a result, companies, like Facebook, enhanced and increased the value of their businesses and platforms when consumers adapted into the role of prosumers for this new digital capitalist economy. Companies of Web 2.0 all have a goal of reaching success in the digital economy. Jurgenson and Ritzer (2012) state that they do this by, “increasing the number of users through publicity and increasing visibility by expanding what the site has to offer mainly on the basis of what *prosumers* contribute to it... by having the costs of development (largely labor costs and computer equipment) borne mainly by the prosumers developing the site... by branding the site and perhaps ultimately through the creation of various revenue streams [10].

B.Part 2: Cyberlibertarianism

In order to conceptualize the impact of the emergence of Web 2.0 in the digital capitalist economy and its relationship between prosumers and capitalists, one must understand the concept of *cyberlibertarianism*. Cyberlibertarianism is a political philosophy that allows for individual existence, freedom, and flexible mobility for users of the Internet and the digital sphere without the presence of a central government. Cyberlibertarianism also allows for information that is found on the internet to be universally accessible and (mostly) free of charge [5]. Users are protected through principles and laws under cyberlibertarianism that prevents their best interest from being at risk. An example of this is ‘net-neutrality’ which allows users to have access to all content found on the web sphere regardless of the source in which the content came from. Because of this, capitalists struggle to coexist on this digital platform due to the fact that their participation and power towards alignment to their profit-making motives are often restricted, limited, or blocked in this capitalist economy. Cyberlibertarianism ensures that this happens in order to keep the best interest and safety of web users. Capitalists are then forced to find ways to adapt their role under the digital capitalist economy of Web 2.0 and beyond [10].

C. Part 1: The Digital Capitalist Economy – How Capitalists are at Disadvantage

Even though the businesses and corporations of capitalists tend to usually thrive under the digital platform economy, capitalists have been faced with consequences and detriment for their actions towards how they have performed, which has put the stability and reputation of their businesses and corporations at risk. As stated before, cyberlibertarianism is an influential factor to the livelihood of capitalists because capitalists have struggled to harmoniously coexist with prosumers in this economic platform. William states that in order for capitalists and prosumers to coexist, “capitalism will need to deal with both collective and individual resistance on the internet. The likelihood that such resistance will continue means that capitalism will need to adapt in various ways, and it is at least possible that what will emerge, at least in this context, is a new form of capitalism (digital). Such a transformation is made even more likely by the nature of exploitation on Web 2.0,” [4]. An example of the consequences of collective and individual resistance and how it has placed capitalists at a disadvantage are the lawsuits against AOL versus users. When AOL emerged into the economic market of Web 1.0, they had a population of users who became volunteers in order to create content and help the new users adapt into the community. According to Prostigo, “Volunteers were given two hours credit time for every hour they volunteered and were able to ‘bank’ those hours for future use. Many who became volunteers did so because they had been spending thousands of dollars on monthly service fees and exchanging work for time on the system was a way to keep the bills down. Others... believed that AOL would provide them with the needed computer experience to be employable in the emerging tech-economy or even by AOL,” [11]. In 1996, AOL reached its peak of

prosumption as volunteers were helping AOL acquire at least \$7 million USD a month. Tensions then began to rise between AOL and its volunteers due to the increase in volunteers that were ‘hired’, the lack of control that the corporation established in the role of the volunteer to the company, and the lack of (monetary) compensation and benefits that AOL gave its volunteers regarding the quality and delivery of their work [11]. The first lawsuit filed against AOL was by Errol Trobee who served as a volunteer in 1995. Trobee demanded for back wages that the company failed to provide him with as a form of compensation for the labor that he has produced in the company. As a result of this lawsuit, AOL tried to restructure its volunteer population in order to gain control over it by positioning volunteers to perceive themselves as employees. AOL shows how it handled collective and individual resistance towards the emerging digital capitalist economy by adapting to the changes in the environment from the traditional capitalist economy and intergrating a more functional relationship in which they can coexist with their volunteers (prosumer) in this economic market.

Cyberlibertarianism ideals also pushes towards data transparency from businesses and corporations. Consumers are becoming more aware that capitalists are using their personal information to modify or enhance their experience and satisfaction towards a good or service. Consumers are becoming skeptical to how their information is being used and worry as to whether it’s being compromised or exploited. Transparency towards businesses and corporations in how they are using their customers data has become a distinguished characteristic towards the success of a capitalist, especially under the digital capitalist economy. Businesses and corporations fear data transparency because in most cases, they are exploiting the data they’ve retrieved from their customers and users. Tapscott and William (2008) state, however; “rather

than something to be feared, transparency is a powerful new force for business success. Smart firms embrace transparency and are actively open. Our research shows that transparency is critical to business partnerships, lowering transaction costs between firms and speeding up the metabolism of business webs. Employees of open enterprises have higher trust among each other and with the firm, resulting in lower costs, better innovation, and loyalty,” [4]. The Facebook proceeding of the German Federal Cartel Office in 2019 shows how data abuse and privacy violation are imperative for the greater livelihood of businesses and corporations which results in exploitive and abusive conditions towards its consumers and unfair market power. The Facebook proceeding of the German Federal Cartel highlights unfair conditions through data privacy because Facebook was accused of violating German data protection law against its consumers based on the Data Protection Directive and General Data Protection Regulation (GDPR) [12]. The Federal Cartel Office (FCO) investigated the suspicious processing of data performed by third parties and Facebook’s subsidiaries. The FCO found that the third parties and subsidiaries were collecting data and web tracking against users knowledge and will by applying an interface of Facebook reactions (liking, commenting), even if the users were not actively interacting or using Facebook reactions at the moment [12]. The German Federal Cartel considers this a violation of privacy against its consumers in which the consumers are being abused and exploited for their data. ‘Article 5 (1)(c)’ of the General Data Protection Regulation states that, “personal data shall be ... limited to what is necessary in relation to the purposes for which they are processed (‘data minimization’)”. If there is no validity towards the data that is being processed, it could fail both the GDPR and proportionality tests [12]. In order to determine if a set of data passes the proportionality test, the GDPR states that, “proportionality requires that (i) the object of the contract is legitimate, (ii) the obligation in the contract can contribute to

achieving this object, (iii) there are no less abusive means to achieve the object and (iv) the legitimate object should outweigh the exploitative effect. Since necessity is a part of the proportionality test in (iii), the entire fairness test comes down to the question of whether the obligation is proportionate,” [12]. In losing the appeal to the German Federal Cartel Office, the case of this Facebook proceeding illustrates how there must be refinement and better access to transparency regarding data protection and competition policies of businesses and platforms under the digital economic market. Data protection laws must be practiced constantly throughout time in order to ensure the safety of a consumer. In order to do so, data transparency is imperative towards the nature of data protection.

C.Part 2: The Digital Capitalist Economy – How Capitalists are at Advantage

In a digital capitalistic economy, it is no doubt that the capitalists are the ones who thrive off the system. Unlike the traditional capitalist economy where capitalists focus on working towards efficiency, in the digital capitalistic economy, capitalists work on the creation and upgrade of products and service [5]. Because they have an abundance on producers, capitalists do not worry about how effective their products and services are because they can easily be replaced. Instead, capitalists enhance their value, “by increasing the number of users through publicity and increasing visibility, by expanding what the site has to offer mainly on the basis of what prosumers contribute to it, by having the costs of development (largely labor costs and computer equipment) borne mainly by the prosumers developing the

site, by branding the site and perhaps ultimately through the creation of various revenue streams,” [5]. Because they are unwilling to pay the prosumer for their labor in wages, capitalists are at a great advantage towards maximizing their profit in this digital market. Other ways in which the digital economy and the Web 2.0 platform bring capitalists to an advantage in generating profit is by selling the information of users to other companies, often for advertising purposes. Companies pay capitalists to have ownership towards information that can put them at a comparative advantage from their competitors. For example, a ticket-selling company can acquire information from Instagram towards the last five songs you uploaded in your story. The company can then use this information to generate a personal ad for you in regard to purchasing tickets for the nearest performance of one of those artists. Capitalists can generate spin-offs off their company or platform. ‘JetBlue Vacations’ is a perfect example of a spin-off because JetBlue expanded their services from just an airline company to a travel service company. Customers can now arrange and get deals on flight and hotel while JetBlue acquires additional inputs into their production model for a greater accumulation of profit. Capitalists also use the Web 2.0 platform in order to build their brand towards a larger crowd and greater reputation for online and offline success. Because prosumer culture emphasizes the value and influence of a person or brand, the greater your influence is, the higher your value is. By building your brand towards a brand with high influence, you can maximize your profit with other brands or people who are willing to collaborate with you because of your influence in exchange for financial compensation. A capitalist can also develop premium models of their product or service in order to charge its customers extra. ‘Spotify’s’ monthly subscription allows you to listen to any music of your choice at a free cost however, they carry some limitations to the way in which you can access

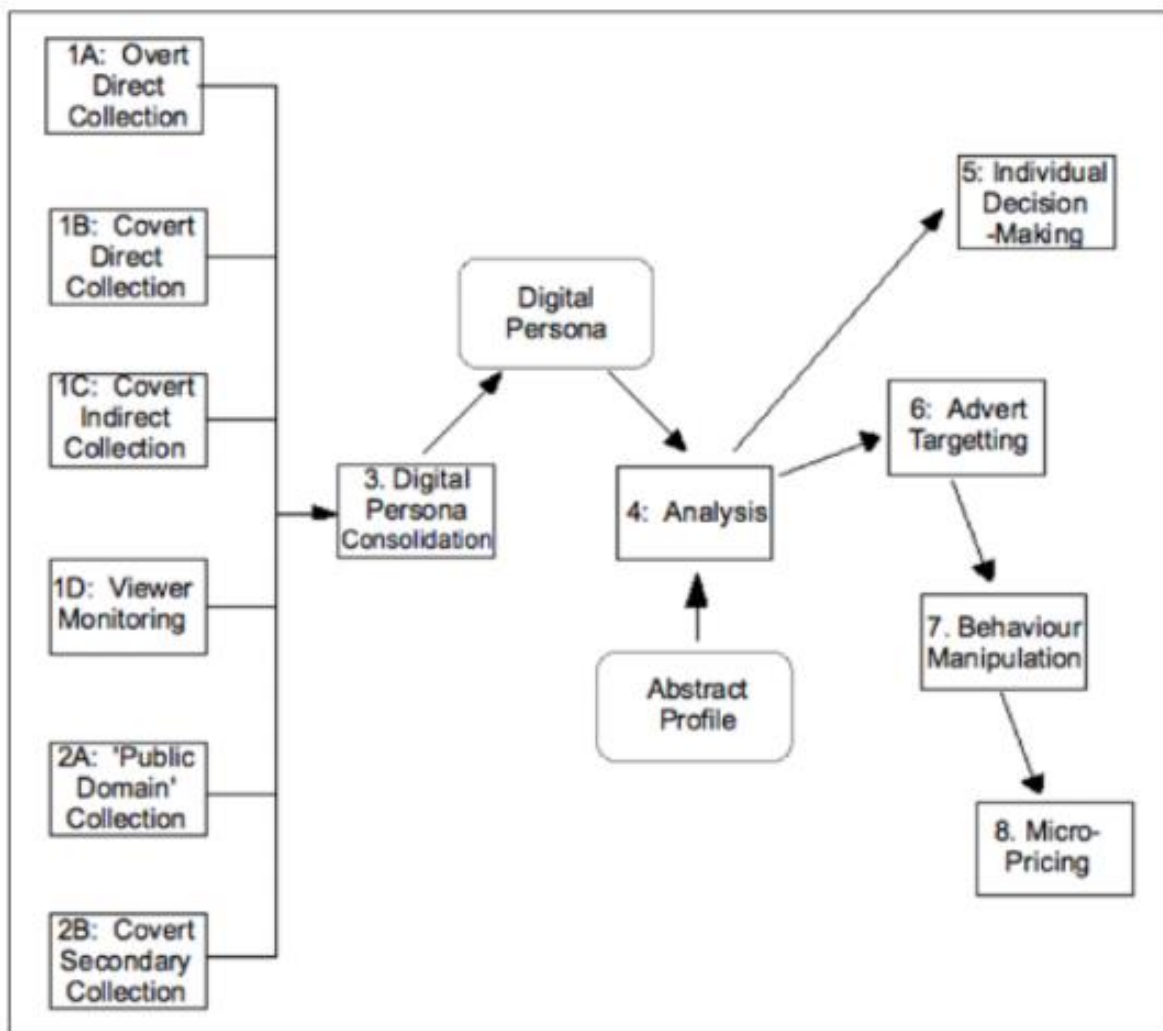
or participate in the app. For example, you can't skip advertisement, listen to music online, or skip your music after a certain amount of time. With Spotify Premium, however, you have the freedom to do all of the above and more for a subscription of \$9.99 a month.

C.Part 3: The Digital Capitalist Economy – How Prosumers Are Being Exploited

In a digital capitalistic economy, it is no doubt that the prosumers are the backbone to what keeps the system functioning. Prosumers, however, are undervalued and degraded for the amount and value of labor and knowledge that they provide to this community. Exploitation against prosumers in this economy is present in many ways. To reiterate, one of the ways in which prosumers are exploited is through violation of data privacy. As seen in The Facebook proceeding of the German Federal Cartel Office, businesses and corporations invest in surveillance technology in order to gather and sell the online data of users to other companies. Data can be retrieved through a user's search engine history, the photo's they like on social media, how long they stay at a website, their purchase history, etc. The companies that bought these data, then, exploit prosumers by customizing advertisement to fit their interest and surpass their budget based on their demand for the good or service. Fuchs (2012) states, "capitalism protects privacy for the rich and companies, but, at the same time, legitimates violations of consumers' and citizens' privacy...moreover, it can violate basic civil liberties," [13]. 'Acxiom's InfoBase' is a commercial consumer database company containing information on 500 million active consumers worldwide. Acxiom processes about 50 trillion data transactions a year which helps its clients determine the value of people in terms of their preference in order to deliver its

sales approach to their targeted audience [13]. Have you ever searched up a product on Google and then saw an ad for it shortly after on a social media platform? This has started to recently happen quite often to users of the internet and social media and is an example of digital data surveillance in relations to exploitation.

Figure 6: Key Processes of the Digital Surveillance Economy



Source: Clarke, Roger (2017)

Digital data surveillance also exploits the prosumer through price discrimination and income inequality. Price customization occurs when businesses and corporations charge different prices for different people [14]. Price customization is done as an effort by advertisers, marketers, and businesses in the Web 2.0 sphere to increase Gross Domestic Product (GDP) and economic growth in the nation. Because Web 2.0 is one of the largest environments in our capitalist economic system, businesses and corporations strive to expand advertising capacity and online sales by collecting data and then performing price customization in order to maximize profits and revenue [13].

Figure 7: Internet Advertising Revenues in the USA, 1997-2008



Source: IAB and PwC (2019)

Price customization also leads to income inequality for prosumers in the digital capitalist economy. Hirschman indicated that there is a divide in the social wealth in the digital capitalist economy between users with lower social economic status (SES) due to price customization [14]. Users of lower social economic wealth are more exploited than users who have higher social economic wealth because the community of users who have higher social economic wealth are shown more advertising and marketing towards loyalty and reward programs due to their ability to consume more. Because of this, users that have higher social economic wealth tend to pay less than users with lower social economic wealth for the same goods and services provided by businesses and corporations. The findings of a Wall Street journal indicate that, “price customization software tended to create lower prices for higher SES areas, while providing higher prices for lower SES areas. In the study, the weighted average income of ZIP Codes that mostly received discount prices was roughly \$59,900, while the average income of ZIP Codes that saw generally high prices was \$48,700,” [14]. Price customization and income inequality in the digital capitalistic economy is exploitive because 1. The labor that the online user perform in order to have their data extracted and analyzed for the maximization of prices and profit was not compensated. Because users are unaware and underestimate how valuable their labor and data are for businesses and corporations, the capitalists decide to exploit their ignorance. 2. Users lose access to their freedom of how they want their data to be used, how much data they want businesses to use, and who can purchase their data and for how much. 3. They aren’t aware of their data as their data is held, “captive to and conditioned by the perennially exploitative processes of capitalist exchange” [14]. Digital surveillance and price customization share the same conditions of producers and consumers in a monopolistic or oligopolistic economic system as it alienates competition while having complete possession over the inputs of goods and

services in the digital economic system of our society. What will this mean for the nature of our economic system in the future?

D. Conclusion

Although there is transparency and evidence in the ways that users are exploited as prosumers in the digital capitalistic economy, there are contradictory feelings that arise from both capitalists and prosumers towards this revelation. Many argue that they don't see the labor of a prosumer valuable enough to receive monetary compensation because the labor that they perform is typically done out of leisure, a hobby, or enjoyment; they simply do not see this as 'work'. In our culture and society, there has been systems and forms of labor that have developed and evolved overtime in which the value of these systems and labor have changed due to an increase of knowledge by its participants and overseers towards the performance and contribution to society that they bring about. An example of this is the role of a housewife. Housewives maintain and stabilize the home environment but are usually not paid for their labor because society has deemed throughout time that housewives are meant to perform voluntary free labor. However, in the case that someone is in need of a person to perform and constitute the labor that a housewife does, they hire someone to do that labor for the exchange of monetary compensation (babysitter, cook, cleaner). The same ideal applies towards prosumerism. This was also seen in the Web 1.0 sphere around 1999, when AOL volunteers asked the Department of Labor to investigate whether AOL owes them back wages for their labor and contribution towards the company as they began to realize that their voluntary labor deserve monetary compensation [2]. I believe that our society lacks the knowledge to fully comprehend the social and economic impact of prosumers in the digital capitalist economy and the Web 2.0 sphere to be convinced that

prosumers, for right now, are worthy of monetary compensation for their labor and efforts made into this market. One of the reasons being is that this market and economic system is still at an early level of development where we also lack transparency from businesses and corporations to fully conceptualize the cycles, roles, and impacts of this economic market. New roles were introduced into this capitalist economic system that shifted us from a traditional standpoint into an evolutionary standpoint. Because of that, we must still learn to adapt and refrain from applying traditional concepts and beliefs into this new capitalist system because it will continue to constantly change and develop overtime, especially with the integration of new technology (like the metaverse, for example). However, it is safe to say that prosumers have still revolutionized this sphere into a positive and impactful force unlike any economic trend or cycle in the United States and worldwide.

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