Social Implications of Corporate Data Collection & Use

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Introduction

Information and Communication Technologies (ICTs) like the internet and cell phones have become more and more prevalent and have revolutionized many aspects of daily life. The Internet provides a vast range of online information, which has made knowledge more accessible. Cell phones and social media sites make it easier than ever to connect with family and friends all around the world. However, our online activity is not actually as private as we think; our online actions are monitored, analyzed, and these bits of information are turned into data. This data has a variety of uses, which we only seem to become cognizant of after scandals: Edward Snowden's revelations that the United States National Security Agency's (NSA) counter-terrorist practices included monitoring and building profiles on innocent individuals using their cell phones, computers, social media, and (apparently not-so) private messages, sent shockwaves around the world. According to the NSA, this bulk-data collection should not trouble those with "nothing to hide", but this did little to quell the concerns of privacy violations posed by civil-liberties groups and individuals.[1] These questions of privacy in one's personal information were again raised after raw data from 87 million profiles was harvested through an Facebook "quiz": a loophole in Facebook's API allowed for the collection of data from the quiz-taker's Facebook friends, and this data was subsequently sold by Cambridge Analytica-- a firm specializing in data analytics.[2]

Yet, despite the magnitude of these scandals, very little consequential change resulted from them. In fact, while Cambridge Analytica shut down, its former staff simply founded other

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[1] MacAskill, Ewen, et.al. "NSA Files Decoded: Edward Snowden's Surveillance Revelations Explained." The Guardian. November 1, 2013.
[2] Chang, Alvin. "The Facebook and Cambridge Analytica Scandal, Explained with a Simple Diagram." Vox. March 23, 2018.

data analytics companies such as Emerdata and Auspex-- the former of which was literally created in the same office space that housed Cambridge Analytica.[3] Data is still being collected at an unimaginable rate, and despite its pervasiveness, data collection and use practices are still unclear to the general population. This opacity does not mean that these practices are not impactful: data has proven to have a wide range of potential uses, both positive and negative.

However, while data applications are not inherently bad, the harvesting and sale of data has been extremely profitable, which means that corporations and individuals have taken actions to maximize these profits regardless of any other impacts. This is consistent with the dominant neoliberal-capitalist world order, where capital accumulation is of the highest priority. The way that data has been used as a result of our economic system has led to societal alienation because of an increasingly superficial society and disengaged population, and the reinforcement of the current world order-- including its power imbalances.

Background

Discussions of data science as a field and data itself are jarringly impersonal. Data science, an emerging field with a focus of deriving knowledge and insights from analyzing data, has been described as "the child of statistics and computer science", and as "putting a human face on the data analysis process".[4] However, data analytics already have a "human face"; the data in question consists of information on people, as well as on places, things, and events.[5] The data in question can be deeply personal: online data collected about individuals ranges from their social media likes and photos, to their online purchases, to how long and in what order they look

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[3] "Cambridge Analytica Staff Set up New Firm." BBC News. BBC, July 12, 2018.
[4] Blei, David M., and Padhraic Smyth. "Science and Data Science." *Proceedings of the National Academy of Sciences* (July 2017).
[5] Vallor, Shannon. *Technology and the Virtues a Philosophical Guide to a Future Worth Wanting,* p. 188.

at online products.[67] It can also include locations, consumption habits, political and religious affiliations, and a vast range of other personal information.[8] With the emergence and spread of ICT, this data is generated and collected at a rapidly increasing rate.[9]

Despite how far "Big Data" reaches and how pervasive data collection can be, it is an opaque field. Users do not always realize that their data is being collected and/or how it is used: it includes data gathered as a result of terms of service and licence agreements, which are notorious for being inaccessibly long and convoluted. It also includes information that users routinely share with the belief that benefits of posting outweigh privacy risks, or without fully realizing the extent of these privacy risks, like posts and other personal information on social media.[10] The aggregation of this data, which is made easier by massive databases and parsing algorithms, can be deeply revealing about individuals.

It is important to acknowledge that technology, social media, and data, are neither "good" nor "bad"; they are tools whose values and impacts are determined by the ways in which they are used. Data collection is not inherently an immoral practice: data analytics have been used to respond in a timely manner to humanitarian crises, and have had lifesaving impacts after events such as the 2009 earthquake in Haiti.[11] Presently, the Center for Disease Control and Prevention (CDC) is currently drawing from a number of data sources in order to monitor the spread and

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[6] Ibid, pg 188.

[7] Stanley, Jan, and Barry Steinhardt. "Bigger Monster, Weaker Chains: The Growth of an American Surveillance Society." *Ethics and Emerging Technologies*, 2014.

[8] Vallor, pg 189.

[9] Khan, Nawsher, et.al. "Big Data: Survey, Technologies, Opportunities, and Challenges." *The Scientific World Journal* 2014 (July 17, 2014).

[10] Vallor, pg 189.

[11] Latonero, Mark. "Big Data Analytics and Human Rights." *New Technologies for Human Rights Law and Practice*, pg 154.

intensity of COVID-19.[12] Data can be used to show us interesting statistics about ourselves: at

the end of each year, popular music streaming service Spotify offers each user something called

Spotify Wrapped, which presents them with their "year in review": most listened to songs,

artists, and the like. However, even when used to produce net-positive or net-neutral outcomes,

the data in question is still individuals' personal information. Thus, the collection and use of data

does inherently pose risks to privacy, which must be weighed against the potential benefits of its

applications.

But data is not only used to show us statistics on ourselves, or to save lives amidst

humanitarian crises. Data can also be used for surveillance purposes ("dataveillance"), even if it

is not initially shared and/or collected for that intent-- such as posts on social media, or searches

on a website. While the privacy concerns of data surveillance certainly lend themselves to

Orwellian concerns about "big brother"-esque government, they are also present in corporate

surveillance. As data on consumers has become more and more accessible, corporations have

recognized it as a valuable tool in marketing and advertising. Today, untracked consumer activity

is essentially seen as money left on the table: since advertising efforts are expensive, companies

use any information they can in an attempt to make sure those costs do not go to waste.[13] In fact,

companies have emerged to collect and consolidate data into databases, and profit from its sale:

data aggregation is a multi-billion dollar industry, despite being virtually invisible to the average

person.[14] The use of data to increase profit is much less justifiable than the use of data to save

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[12] "FAQ: COVID-19 Data and Surveillance." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, April 17, 2020.
[13] Stanley & Steinhardt, pg 272.
[14] Stanley & Steinhardt, pg 275.

lives when weighed against the inherent privacy violations involved in the practice, and the repercussions of its use in profit maximization range far beyond privacy.

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Real-World Practices

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Predatory Advertising

Even without the incorporation of data, advertisements are carefully curated to achieve desired outcomes, which generally include increasing sales of goods and services, gaining market shares, and/or building a brand.[15,16] All of these outcomes are meant to increase profit, generally by inducing new wants to the population and, in turn, convincing them to buy certain commodities to fulfill those wants. Appealing to consumers' emotions is a frequently used tactic to induce these "wants", and often relies on consumers' shared needs, desires, and fears. For instance, the ASPCA runs montages of dismal-looking animals and sad music, which makes the audience *want* to do something to improve the animals' conditions. Then, a narrator tells the audience members that they can do just that-- and with little effort required-- by providing the ASPCA with a monetary donation. Alternatively, advertisements that showcase only attractive people using a particular product attempt to convince consumers' that the product in question will fulfill their desires to be attractive and accepted themselves.

However, advertisements also go beyond simply appealing to consumers' emotions: they can exploit them, and may go to extreme measures to do so. Jean Kilbourne's documentary, *Killing Us Softly,* illustrates a particular example of this exploitation by examining the advertising tactics used to induce feelings of self-consciousness and inadequacy experienced by

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[15] Here, the definition of "goods and services" is essentially anything an individual, company, or group may want to promote-- this includes but is not limited to physical products, online products, political candidates, a particular message or ideology, and the like.

[16] "MSG Management Study Guide." Advertising Techniques. Management Study Guide. Accessed May 10, 2020. https://www.managementstudyguide.com/advertising-techniques.htm.

many women. Kilbourne examines the ways in which advertisers set unattainable standards of

beauty by essentially photoshopping the "best" qualities of several different women into one

image, promoting said image as "ideal" beauty, and convincing women the only way to achieve

such perfection (and therefore, escape from their feelings of inferiority) is by purchasing

"enhancing" products like cosmetics.[17] She also examines the link between self-destructive

behaviors like disordered eating as a result of the unattainable standards in these advertisements.

These examples make it clear that advertising tactics can and do move beyond simply appealing

to emotions and instead exacerbate and exploit them.
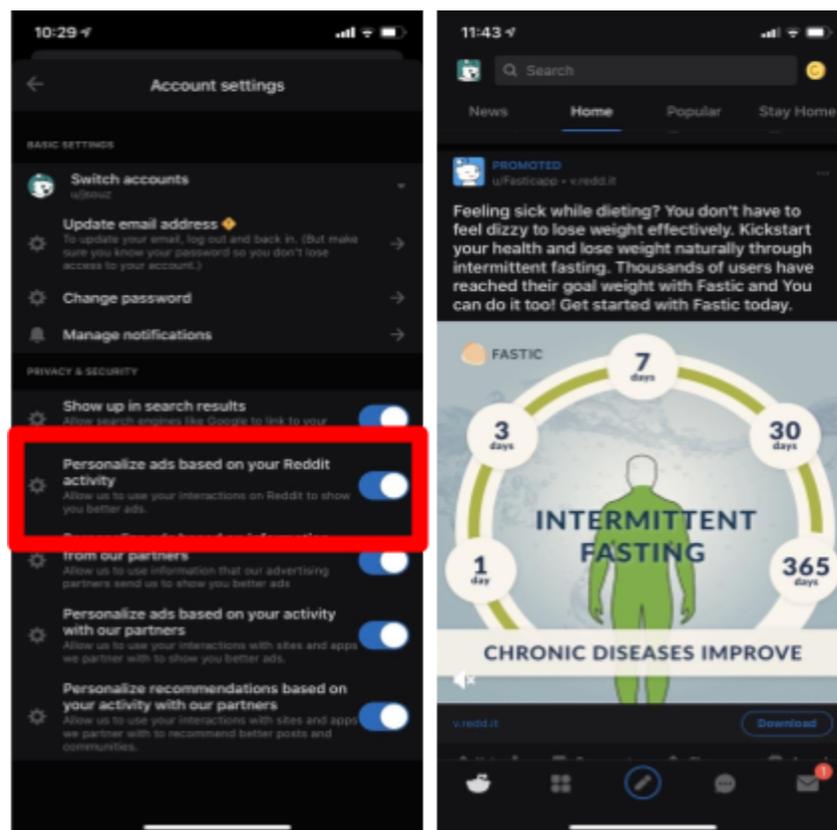
I subscribe to r/eatingdisorders.
Left: Reddit user settings, which say that they target advertisements based on a
user's activity.
Right: an advertisement for a dieting app, which promotes intermittent fasting
and promises a relief from "feeling sick" or "feeling dizzy" while losing
weight (two prevalent ED symptoms)

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[17]*Killing Us Softly: Advertising's Image of Women*. Cambridge Documentary Films, 1979.

Since personalized data allows for personalized advertisement, it also allows for personalized exploitation. Individuals use the internet to research and/or seek support for personal problems, which can generate data on deeply private information.[18] For instance, if an individual has sought online-support or conducted research on or about eating disorders, a company with access to data on these searches may populate the individual's feed with weight-loss and diet advertisements. While these advertisements may be effective in convincing the consumer to engage and/or make a purchase, it comes at the expense of the individuals' wellbeing. Using data to microtarget advertisements to consumers also allows for the especially effective exploitation of these consumers' individual insecurities and struggles.

Using an individual's data in a way that may be effective in getting them to spend their money but is overall detrimental to their wellbeing is a characteristic of the contemporary neoliberal model, where questions of morality, ethics, and how to live well with others have fallen to the side in favor of individualism, the market, and making a profit. As a result of capitalist commodification, an individual's value has become tied to their value as a worker: determined based on their productivity and profitability. Thus, individuals are treated like a means to an end-- as if they are commodities, rather than humans. This has led to the prioritization of profit over people. For instance, the practice of cutting off services such as water, gas, and electricity has been accepted as the privatization of these industries has run its course, and because of business models that "favor more affluent customers" and essentially place a "surcharge on the poor", has led to a growing gap between the rich and poor in terms of access to water and other services.[19] In the nineteenth century, Britain demonstrated their

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[18] Stanley & Steinhardt.
[19] Chomsky, Noam, and Robert W. McChesney. *Profit over People: Neoliberalism and the Global Order*, pg 68.

willingness to forego human wellbeing in order to profit economically when they imposed opium

onto the Chinese population while simultaneously banning such substances in England.[20] Today,

the availability of people's personal data has allowed new ways for capitalist elites to exploit

others in order to make a profit.

Social Media "Addiction"

In the aforementioned example, opium was used as a tool to derive a profit from the

Chinese population, and was especially effective because of its addictive nature: although it was

detrimental to their health, individuals kept buying opium because it was addictive. Of course,

opioids are not *inherently* bad: they can be used as medicine. Their detrimental impact was a

result of the capitalist elite encouraging the drug's misuse in order to derive a profit. Similarly,

today's social media is not inherently bad, but the ways in which the capitalist elite use it as a

tool or mechanism to derive profit-- and the ways that they encourage individuals to use it in

order to maximize this profit-- have had detrimental impacts on society.

Websites and applications ("apps") that are free to users depend on other means to make a

profit, by selling users' data. The sale of user data has become a large and profitable enough

industry that companies like AppGrow[21] have emerged to serve as intermediaries, who buy user

data from apps in order to then sell it themselves. Because these websites, apps, and

intermediaries alike prioritize profit above all else, the value in selling personal data comes

before the privacy violations and risks posed to users.

Because their profit relies on user activity and data, websites and applications also have a

vested interest in keeping users engaged. Adam Alter describes this practice as "the business of

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[20] Ibid, 26.
[21] See: https://appgrow.com/

keeping us hooked", and describes various mechanisms by which technology executives design addictive products. Nintendo's Shigeru Miamoto designs video games that people "can't stop playing", because the first few seconds of gameplay are specifically designed to teach users how to play, without users realizing that they are being taught anything at all.[22] Games like FarmVille have kept users engaged on social media sites like Facebook.[23] Instagram, like so many other sites, are "bottomless"-- Instagram, Facebook, and Twitter users are presented with an infinite feed of content to scroll past, while Tinder users are encouraged to keep swiping to find a better alternative.

This is not coincidental: design ethicist Tristain Harris has argued that social media addiction does not stem from a lack of willpower-- rather, that "there are a thousand people on the other side of the screen whose job it is to break down the self-regulation [users] have" in order to keep them engaged, and Greg Hochmuth, one of Instagram's founding engineers, was cognizant that he was building an "engine for addiction", because "there's always another hashtag to click on".[24] This, again, illustrates the prioritization of profit over people: despite the fact that social media addiction has been found to have negative impacts on self-esteem and life satisfaction[25], social media is literally engineered to be addictive-- in no small part because if users are more engaged, they will generate more data, and companies can derive more profit from them.

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[22] Alter, Adam L. *Irresistible: the Rise of Addictive Technology and the Business of Keeping Us Hooked*, pgs 147-149.
[23] Ibid, pg 313.
[24] Ibid, pg 3.
[25] Hawi, Nazir S., and Maya Samaha. "The Relations Among Social Media Addiction, Self-Esteem, and Life Satisfaction in University Students." *Social Science Computer Review* (October 2016).

Significance

Self-Commodification & Social Fetishism

Karl Marx defined a commodity as some object that satisfied some aspect of human wants, regardless of the nature of this want-- meaning that a "want" could be something necessary to live such as food and water, or it could be a luxury item.[26] Because desire for profit is so dominant within a capitalist society, virtually everything has come to be understood in terms of its monetary value: things like interpersonal relationships and nature are no longer understood as having any sort of intrinsic value, rather, their value is determined in terms of money and profit.

Because our data has become so valuable and we are encouraged to use social media excessively, we have become products ourselves-- and have undertaken a process of self-commodification accordingly. Self commodification often includes the development of a "brand", or specific online personality, not unlike those used by companies to sell products. However, while corporations generally use their brands in order to gain financial capital, individuals' social media "brands" are used to gain social capital. "Social capital" refers to the amount of social support an individual can rely on and use to solve their problems and/or meet their needs, and has been empirically linked to psychological well being and feelings of "life satisfaction".[27] On social media, "social capital" has taken on the more superficial form of likes, comments, and followers, as opposed to more meaningful forms of social interaction.

Commodity fetishism describes how objectively arbitrary factors are used to determine the value of inanimate things (i.e. commodities).[28] For instance, the idea that a brand name is

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[26] Marx, Karl. *Capital*. Vol. I. Marxists.org, https://www.marxists.org/archive/marx/works/1867-c1/ch01.htm#S4.
[27] Vallor, pg 160.
[28] Marx, Karl. *Capital*. Vol. I. Marxists.org, https://www.marxists.org/archive/marx/works/1867-c1/ch01.htm#S4.

better than a generic brand is socially constructed, but this social construct is still impactful in determining a product's value. Even if there is an identical generic-brand alternative, individuals may still purchase a more expensive name-brand product just because of the supposed value associated with a particular company. As a result, a good can still succeed in the market despite being more expensive if society over-inflates its value, which means that this over-inflation increases the profit for the company producing that good.

Social commodification has extended to a sort of social and self-fetishism: much like commodities' value can be determined by factors that may not have anything to do with the item's overall quality, an individual's value has become dependent on factors that have nothing to do with their quality as a human being, like the number of likes they get on a picture. The amount of online social capital an individual receives does correlate somewhat with their profitability, as every new like and follower is data that can potentially be sold. However, this is an overall arbitrary way to measure value, even of a commodified individual. Further, it is important to not lose sight of the fact that capitalist culture means that a commodified individual is not valued based on any factors intrinsic to their humanity.

The commodification of one's self in order to gain social capital includes the development of a "brand", not unlike those used to sell products. Instagram users are known for their tendency to curate and post ad-like snapshots of their lives, creating a feed of seemingly perfect content in order to maximize likes and followers. On dating apps like Tinder and Bumble, individuals are encouraged to swipe through profile cards of other users-- swiping right if something in the profile catches their interest, left otherwise. Right swipes are known as "likes", and if two users "like" one another, they are considered to be a "match" and are encouraged to

start a conversation. Here, social capital would be the number of likes and/or matches that one receives. To maximize matches, individuals often must reduce themselves to a specific "brand" or angle, as profile cards cannot contain enough information to fully represent someones' personality. The desire to maximize social capital has sway over individuals' actions and behaviors: a user may post at certain times of day, when most of their followers are online, to maximize the number of likes and comments they receive. Another may delete a post that did not receive what they consider to be "enough" likes.

Social Alienation

Despite the arbitrary nature of these factors, their use in determining the value of an individual have had societal impacts. The over-valuation of commodities and under-valuation of individuals has led to alienation, a process that results in people becoming "foreign" to, or disconnected from, the world we live in.[29] This disconnect between person and environment is significant: many moral philosophers argue that humans form our self-identities through their network of relationships with others. Our relationships with our family, friends, teachers, and other citizens influence who we are.[30] This means that if an individual loses touch with their environment-- and therefore, those within it-- they will lose touch with themselves, too.

This sort of societal disconnect and alienation is a byproduct of excessive use of social media. Tinder's business model promotes making snap judgements about people-- the more cards a user swipes on, the more activity and data they generate, which means that the careful examination of a profile is less profitable than fast swiping based on superficial or "picky"

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[29] "Glossary of Terms: Alienation." Encyclopedia of Marxism. marxists.org.
[30] Vallor, pg 76.

reasons. Boiling down one's personality in order to get matches hardly qualifies as meaningful social relations, nor is it an optimal strategy to engage in any sort of meaningful communication.

The product of this alienation is a lack of person-to-person connection. While certain practices-- like rapid "swiping" or reducing oneself to a specific brand-- are useful in gaining social capital or in generating data, they are detrimental to any consequential or significant social interactions. We previously defined social capital as the amount of social support an individual can rely on and use to solve their problems and/or meet their needs. However, this form of capital does not necessarily fulfill one's

Online & Offline Inequality

Online social environments mirror those offline, which means that problems that exist offline exist online and vice versa. Thus, social media is not a utopia in which all users are equal. Users with access to more financial capital can use it to gain more social capital: Tinder and Bumble allow a user to essentially pay for more matches through in-app purchases, like those that offer to show their profile more often and to more people, which statistically increase a users' likelihood of getting a match. Similarly, Instagram followers and likes can be purchased. Those who are members of the offline upper-class can use their resources to accumulate online capital and stature, as well.

Another overlap between the online and offline "elites" exists in the ability to use social capital to gain financial capital. Users with more social capital have come to be known as "influencers", and if they gain enough of a following, they can even use their social capital to gain actual capital through promoting products to their followers. Influencers can make tens to

hundreds of thousands of dollars from a single social media post.[31] Despite often having no real authority over the commodities they promote, these individuals are paid immense amounts to advertise products to their followers because they are seen as having a high value as a result of their social capital.

It does not take much for offline elites to garner a large following online, and those who have a large following online are able to leverage that to elevate their social position offline. However, perhaps the overlap of online and offline stature is best illustrated through examples of individuals who are already members of the elite class in both spheres, such as Kim Kardasian. Kardasian has a massive following on social media because of her offline fame, and as a result, she can make up to half a million dollars from a single Instagram post.[32] The same is true for her sisters. Thus, the entire family is effectively using the following they have as a result of their position in society to solidify their wealth, thereby reinforcing that position in society. Further, social media has been used as a mechanism by which the elites have solidified their status, thereby reinforcing the systemic class stratification that makes up the dominant neoliberal world order.

While social media may make the proletariat feel as though they are more connected to the elites by offering glimpses into their lives, it has done little to alleviate actual social problems. The prioritization of social capital over actual capital distracts much of the population from the fact that they have little to no meaningful participation in decision making. Noam Chomsky argues that the neoliberal system is dependent on a type of democracy that does little to allow for meaningful changes to social life, as this particular form of democracy does not

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[31] "Instagram Influencer Rates Pricing 2020." Influencer Agency. Influencer.Agency, March 18, 2020.
[32] Wiseman, Ellie. "This Is How Much The Kardashians Earn Per Instagram Post." Grazia. Bauer Media Group, March 17, 2017. https://graziadaily.co.uk/celebrity/news/kardashian-jenner-instagram-worth/.

allow for any sort of popular deliberation or change of business.[33] If the proletariat are busy chasing likes and worrying about how to best portray themselves online, they are less likely to worry about matters like the sale of their personal information. This means that users' distraction allows the capitalist elite to continue to exploit their use and data for profit, which further solidifies existing power imbalances.

Looking Ahead

In a time where society seems to become more and more reliant on technology, this may seem inescapable. Those who have the power to cease unethical data collection and use practices and to disencourage many of the ways in which society uses social media profit from these practices, so they are unlikely to do so. It is extremely unlikely that the capitalist elite will undo these impacts themselves-- it would be counterintuitive to their own profit, and would go against the very culture of individualism that has allowed their continued dominance.

However, capitalism has also proven to be extremely durable because of its ability to adapt to, accommodate, and even thrive from social change. While large-scale data privacy breaches like that of Cambridge Analytica and Facebook or the NSA have yet to bring about substantial change, they *have* garnered significant public attention. Where there is a want, there is an opportunity to profit by fulfilling that want. Over time, as the issue of data privacy continues to gain momentum, it is likely that the capitalist elite will engineer a solution to the problem; most likely one that will reinforce their position within society and that they will profit from.

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[33] Chomsky, pg 9.

Alternative sites are already emerging: DuckDuckGo is a search engine that prioritizes privacy and thus does not collect or share personal information (but does maintain a log of search terms, in a way they claim is not personally identifiable).[34] Their business model is based on commissions through partnerships with sites like Amazon and eBay, where they earn a small percentage of purchases made from site visits through their search engine-- though, these programs do not influence the ranking and relevance functions that power their search results. They also profit by using targeted advertisements-- only those that are based on keywords rather than individuals' information. In their own words, if a user searches "car", they show a car ad.[35]

As sites like DuckDuckGo continue to gain momentum, it will demonstrate to the capitalist elite that there is a significant "want" for data privacy. As such, the capitalist elite will recognize that they can profit through the advent and sale of a commodity that fulfills this want. This could be as simple as a "pay to opt out of data collection" feature, or as complex as an embedded software that ensures anonymity and privacy. Regardless, the outcome will be the same: those who are able to will pay to buy back the rights they previously had.

<div align="center">**Conclusion**</div>

Data is a valuable tool to corporations and can be used to target advertisements toward individuals based on their personal information, such as interests and issues. Since this data is so valuable, the capitalist elite has a vested interest in keeping users engaged online, especially social media sites and apps where users often post their personal information without realizing the full extent of what it will be used for. As a result, the ways in which the capitalist elite have used social media as a tool to harvest individuals' personal information-- like making it addictive

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[34] See: https://duckduckgo.com/privacy
[35] See: https://help.duckduckgo.com/company/advertising-and-affiliates/?redir=1

and placing increased emphasis on its importance to society-- has led to the creation of many new habits and values within society, particularly those intended to maximize online "social capital" in the form of likes and followers. This has led to an increasingly superficial and alienated society, which has in turn resulted in the reinforcement of the capitalist elite's social position through several factors, ranging from the collection and sale of individuals' data to a disengaged population that is too distracted to realize the inherent inequalities that stem from the neoliberal world order.

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