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Ethical Monetization for Social Media Companies

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Abstract

The most popular social media companies today all monetize primarily through the same revenue stream, advertising. Popular social media strategies have developed similar methods to increase the advertising revenue that each user generates. These strategies for monetization have become ever increasingly exploitative and harmful to the social media user population as these major companies are gripped in a technological arms race to capture as much of their user's time and attention as possible. The effects of increased social media use are a general overall decline in our society's physical, emotional, and social health (Haugen, 2021 & Harris, 2019). These health effects occur at higher rates among the younger strata (ages 13-24) of our social media-using population (Hilliard & Parisi, 2021).

I assert that the root cause of these effects is not the mere existence and willful use of social media platforms by the population. It is the necessity to build a harmful platform that exists solely to force advertisement upon its "users" to exist as an economically viable social media company that is the root cause. In simple terms: social media is bad because it pays to be bad.

The question central to this work is: How is the current state of social media monetization unethical and how should companies monetize social media platforms ethically?

Purpose & Scope

The purpose of this essay is not to serve as an exposé on the negative impacts of social media use. This important precedent has previously been clearly established in such works as *The Social Dilemma, Social Media and Adolescent Mental Health,* and many others. Although a high-level overview of the negative impacts of social media platforms will be included, the purpose of this paper is to examine ethical issues around current forms of social media platforms. Furthermore, the goal is to put forth economically viable, and ethical strategies of monetization that a social media company could employ. Special attention to remain pragmatic and realistic will be given throughout this paper. Only a subset of social media companies who are most engaged in the "race to the bottom of the brainstem" will be examined (Harris, 2019).

The issue of social media is broad. It impacts many facets of today's society and is an extremely complex environment. Social media companies have woven themselves into every part of modern American life. Given this, improving the ethical application of social media can be approached from many different perspectives. This paper will primarily take on the perspective of the companies that create social media platforms (e.g. Facebook). Taking the perspective of social media companies is important because these companies are the source of the product that is causing these issues, and the stakeholder best equipped and motivated to mitigate issues with their products in a timely fashion. They hold the power to change more effectively and efficiently, better than any regulation could ensure. While governments, social media users, and other stakeholders of social media platforms may be concerned with these issues, it is likely not their sole focus. However, it is the sole focus and the responsibility of

social media companies to improve. Although the governmental perspective, or perspectives from other disciplines may be considered in addition, they will remain secondary in focus.

In proposing solutions to this problem, I will primarily take an angle of financial strategy for a few reasons. First, the root of the problem is that the tactics social media companies use are profitable but relatively unethical. Second, my educational background is in the accounting discipline, and I know that I will be able to produce the most useful solutions from within my field of study.

Geographically, this paper will focus on the United States of America and on companies that have a substantial impact on the American population. We will focus on Meta (the company formerly known as Facebook) and its major subsidiaries: Messenger, Instagram, and WhatsApp. This paper will also discuss YouTube, Twitter, Snapchat, and TikTok. See *Figure 1* from Statista.com for a breakdown of current use and ownership of these platforms (Richter, 2021).

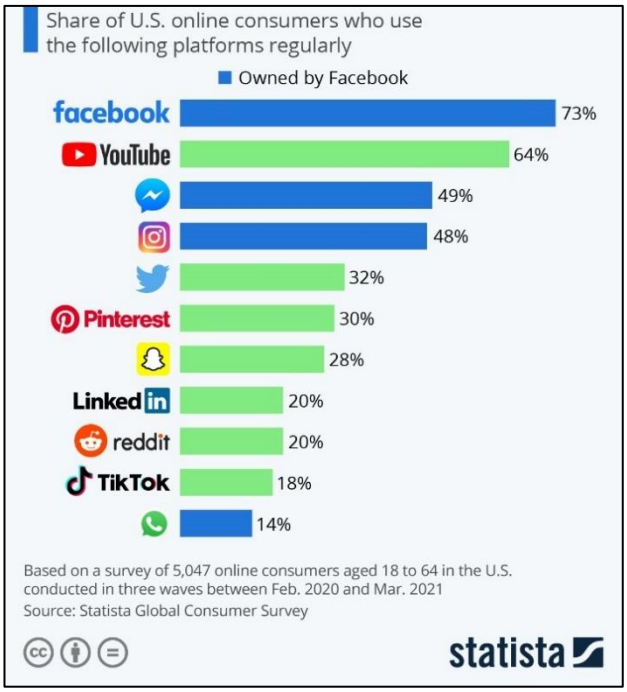

Figure 1 – Percentage of U.S. online consumers who use select social media platforms regularly

Definitions

Social media is defined as: websites and applications that enable users to create and share content or to participate in social networking ("Social Media", 2002). This definition also encompasses "social networking platforms" and "social networks." Many users of social media would agree with this definition, but how do "social media" companies define themselves? According to siccode.com all the previously mentioned social media companies except for Snapchat, Inc. operate and file themselves under the NAICS code #518210 (SIC Code, 2022). This code is defined as, "Data Processing, Hosting, and Related Services," and states that, "Data processing establishments provide complete processing and specialized reports from data supplied by clients," (NAICS Association, 2017a). This definition is important. It reveals that the stated business objectives of these social media companies are to harvest, process, and sell data-driven reports to clients. This telling operational codification stands apart from the mission statement of the largest of these companies. Meta Platforms states that its mission is to, "Give people the power to build community and bring the world closer together," (Meta Platforms, Inc., 2022d). This also contrasts to the NAICS code #519130 that encompasses true "Internet social networking sites," (NAICS Association, 2017b).

Below are definitions of other critical terms relating to the topics discussed.

Monetization: the action or process of earning revenue from an asset, business, etc. ("Monetization", 1867).

Social media algorithm: technical means of sorting posts based on relevancy instead of publish time, in order to prioritize which content a user sees first according to the likelihood that they will actually engage with such content (Golino, 2021).

A race to the bottom: a situation characterized by a progressive lowering or deterioration of standards, especially (in business contexts) as a result of the pressure of competition ("Race to the bottom", 1974).

Ethical dilemma: a situation in which a difficult choice has to be made between two courses of action, either of which entails transgressing a moral principle ("Ethical dilemma", 1845).

The attention economy

The use of the advertising revenue model is not new. The media industry has been using this model for a long time, but the convergence of this revenue-generation model with technology that can easily take advantage of human psychology is clearly harmful. It has resulted in something called "the attention economy" This term was coined by ex-Google design ethicist, Tristan Harris who defines the attention economy as a place where, "Facebook turned each of us into unpaid 'contractors' who create posts and share links to gain the attention of our friends to look at what we post, and doing it for free by manipulating to our honest desires for belonging and purpose," (Harris, 2020). This subset of our free-market economy runs on the competition of who can extract the most attention. Instead of competing to create the best product at the lowest price, companies compete to get the most user attention or engagement from lower, more primitive, and vulnerable parts of our human brains. This has resulted in something called the race to the bottom of the brainstem, which will be discussed later.

Negative effects of social media use

This section will quickly summarize some of the major observed effects that social media has had on America's mental and physical health. Although social media has unarguably served as a vehicle for massive positive societal changes, it also stands as one of the largest problems to our physical and mental health for a variety of reasons. Social media use has been cited as a key contributing factor for a slew of issues including declines in sleep quality, depression, suicide, eating disorders, and addiction.

Addiction

Social media use has the potential to become an unhealthy addiction for a significant portion of users. Evidence supporting the addictiveness of social media use was once highly contested but is now plentiful. This behavioral addiction is marked by overt concerns about social media, uncontrollable urges to use social media, and devotion of so much time and effort into social media use that it impairs other functions of a person's life (Hilliard & Parisi, 2021). It is estimated that around 5 to 10% of Americans meet the criteria for social media addiction as of 2021.

> The phenomena of social media addiction can be largely attributed to the dopamine-inducing social environments that social networking sites provide. Social media platforms such as Facebook, Snapchat, and Instagram produce the same neural circuitry that is caused by gambling and recreational drugs to keep consumers using their products as much as possible. Studies have shown that the constant stream of retweets, likes, and shares from these sites cause the brain's

reward area to trigger the same kind of chemical reaction seen with drugs like Cocaine. In fact, neuroscientists have compared social media interaction to a syringe of dopamine being injected straight into the system (Hilliard & Parisi, 2021).

Most products and activities that have the potential to be addictive for 10% of their customers carry warning labels and are subject to stringent regulations. The relative infancy of social media platforms is a reason for the lack of regulations like the ones that burden the tobacco, gambling, and recreational drug industries.

Internal Facebook research, recently leaked by whistleblower Frances Haugen, indicates that, “about 12.5% of its users, or more than 360 million people,” and, “about 10% of users in the U.S.” experience “problematic use” (Haugen, 2021). Problematic use is defined by symptoms such as compulsive use, sleep disruption, and more generally reported “lower well-being.” This internal Facebook term is strikingly similar to the definition of Social Media Addiction that psychologists use. The internal research also indicated that “problematic use” (Social Media Addiction) was higher on Facebook relative to any other social media platform. The team that conducted this and other incriminating internal research was disbanded by Facebook’s upper management in 2019 (Haugen, 2021). This will be discussed more in a later section.

Social isolation

A 2017 study on the correlation between Social Media Use (SMU) and social isolation found that, “Contrary to our hypothesis, young adults with high SMU seem to be more, and not less, socially isolated,” (Primack, et. al, 2017) The study goes on to state that, “social isolation is

associated with substantial morbidity and mortality.” The study included data from 1,787 U.S. participants ranging from age 19-32, who were statistically representative of 97% of the U.S. population in that age group. This study reveals that social media use may be responsible for higher social isolation and subsequent multiple-cause mortality. It also demonstrates that the impact of social media use is extremely disconnected from its stated intent to bring users closer and make them less isolated.

Adolescent depression, and suicide

When we examine social media's effects on adolescent depression and suicide rates, we find the correlation between social media and these trends is alarming and well documented. The three figures below from the Pew Research Center, NIMH, and the CDC respectively, show the correlations between social media use, and adolescent depression and suicide rates (CDCMMWR, 2017; NIMH-NSDUH, 2021; Pew Research Center, 2021).

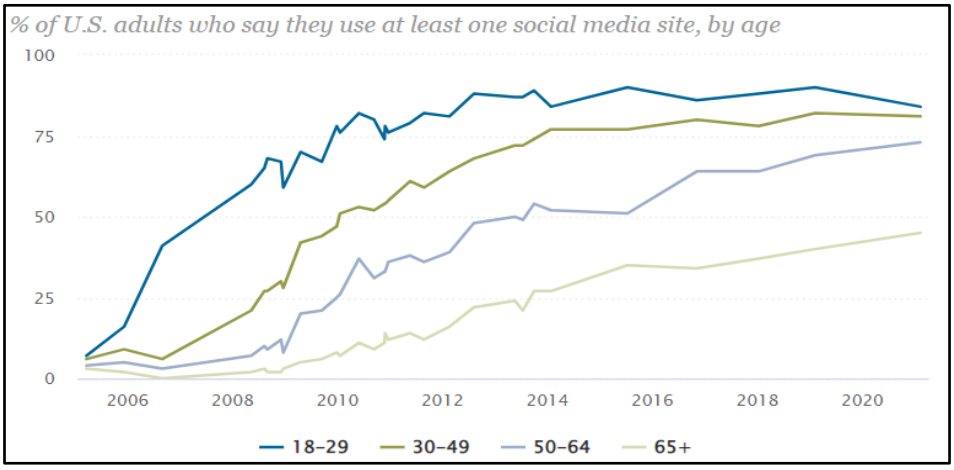

Figure 2 - Pew Research Center

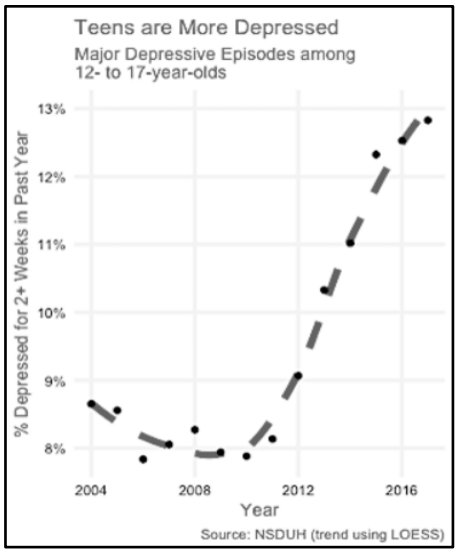

Figure 3 - NSDUH

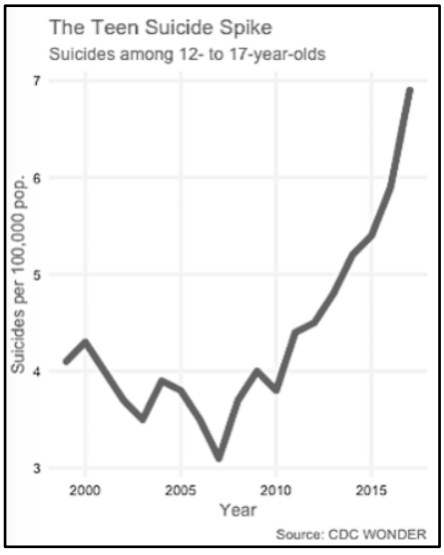

Figure 4 - Center for Disease Control

To emphasize, a comprehensive study that sampled 21,131 participants found that "there is an association between social media use and mental health problems," (Keles et Al., 2019). Keles and colleagues cited at least a dozen comprehensive analyses and studies that validate this assertion. Another study has found that, "an estimated 27% of children who spend 3 or more hours a day on social media exhibit symptoms of poor mental health," (Hilliard & Parisi, 2021). Once again, causation is hard to prove conclusively, but the correlations between social media and poor mental health are not easily dismissed.

It should be noted that these studies prove strong correlations between social media use and the studied negative effects. While third party clinical researchers are more prudent about concluding causality, internal Facebook researchers have been comfortable in assuming causality between use of their platforms and negative effects. Although these examples are just a small selection from the large pool of research supporting the claims that social media is harmful to overall mental health, suicide, and addiction. What about our social media technology is causing these concerning trends? This paper asserts that financial incentives drive these effects.

Ethical Dilemmas & Mechanisms

How is monetization itself an ethical dilemma?

Revenue Generation

The revenues of all the social media giants are gained primarily through advertising revenue. Meta's 2022 Form 10-K revealed that over 97%, or $117.93 billion of their revenue was generated by advertising revenue. Snapchat and Twitter's 2022 10-K forms revealed similar

figures of 99% of $4.12 billion, and 89% of $5.08 billion (Meta Platforms, Inc., 2021; Snap Inc., 2021; Twitter, Inc., 2021). These figures also expose the magnitude of difference between Meta (Facebook) and some of their closest competitors. These companies are somewhat closer together in terms of their primary non-financial metric, "active users." However, given that the definition of an "active user" varies from company to company, and that these numbers are only available from the companies themselves instead of some independent third party, these numbers are not statistically comparable.

Think of how companies traditionally created advertising revenue. A media outlet, originally newspapers and other print media, then television channels, then company websites would create and sell spaces for companies to advertise their products and services. At each evolutionary step in the advertising space, targeting specific audiences became more critical. Newspapers, their content, and advertisements were distributed to anyone with a mailbox, regardless of demographic. Magazines came along and targeted specific audiences, television, and websites have done much the same. They target an audience that fits a general profile. They collect only a few data points about each user. Social media companies, chiefly Meta, the largest company analyzed, do not simply sell advertising space on their websites to companies looking to sell their products and offerings. Their process of revenue generation takes it two giant steps further.

Pulling you in

The first step is to create software and algorithms that subtly manipulate users into staying on their platform and engaging with content for as long and as often as possible. To validate this business goal assertion, consider Meta Platforms' plans to create a "metaverse."

Meta wants to create an environment where users are fully engaged and immersed in a virtual reality. Engaging in business, entertainment, and socialization in an environment that Meta has complete control over. Meta has already done this to a great extent with just their social networks.

Maximizing user time spent on any given platform equates to more opportunities to advertise to you. Increasing opportunities for advertisement effectively generates a greater volume of advertisement space and facilitates increased advertisement revenue generation. So, social media companies have a direct financial interest in crafting their platforms in a way that maximizes the time you use and engage with them. The manipulation tactics used to keep users engaged are numerous. I will discuss a few tactics and their ethical issues later. In a general sense, algorithmic programs are built into the content delivery streams of social media platforms in a way that subtly encourages users to continue engaging. All this engagement by the user creates a lot of data about the user. What data exactly do they collect? And what do they do with that data?

Pulling you apart

This brings us to the second revenue generation step for Meta and others. To create a marketable product, companies start by collecting a large data set from each user. Data about all your searches that reveals what content you engage with most; how much time you spend watching each post, video, or advertisement. Additionally content you like or dislike and what accounts you block or report. They cross reference this data with metrics about each engagement; keywords, political affiliations, activity affiliations, etc. to craft an in-depth

psychological profile of each user (Harris, 2021). They also use this data to create data sets, and targeted advertising space of interest to advertisers.

Targeted advertising itself is not necessarily unethical. The practice has been around for decades. By taking these two crucial steps, social media platforms have crossed the line between acceptable monetization practices and unethical monetization. Platforms start by pulling users in with as much incentive as possible, they then pull their attention apart and sell it, piece by piece.

What data does social media collect and why?

So exactly what data points and attributes are social media giants collecting from their users? What is a valid business attribute to collect, and what attributes cross the ethical lines? What is the point of having a like or dislike button on every comment, within every post? Hypothetically it could be because Facebook wants you to be able to express your sentiments to the comment poster and feel involved with the community of users. But what makes more economic sense, is that they installed that comment like button to collect another set of data points to include in data sales. They can now see what words in a comment caused you and anyone else to like that comment. In other words, they can find the keywords that triggered positive sentiment in you. That information about item/sentiment correlation is essential to advertisers and marketers. It is this type of information that is packaged and sold to advertisers.

Demographic data

The absolute myriad of data that social media platforms collect about each of their individual users is staggering. This data can be broken down into three categories: demographic, preference, and behavioral data. Demographic data such as your age, gender, race, ethnicity,

place of residence, level of education, and political affiliation are just the beginning (Wake, 2017).

Preference Data

Companies then overlay preference data generated from your follows, searches, likes, shares, and downloads to create a digital persona of your activity on their platform. This gives them information about what you like; what people, activities, and ideas you prefer to see and interact with and those you do not (Cyphers, 2020). The platform also tracks your activity across other websites and devices you use to create a more detailed image, while Google provides the means of matching data from separate devices used by a single person (Cyphers, 2020). This matching process allows a single advertiser to know, and then bid on advertisement space that will appear on a device you use that is separate from the device the original tracking data was collected on.

Behavioral data

Finally, your behavioral data fills in the cracks of your online persona and brings it to life. Data such as: when you are online, where you are, browsing search history, what comments and posts you like, how often you log in to social media, who else is near you, what businesses you are near (Delbert, 2021). The list of behavioral information that platforms collect goes on forever, but it is this class of data that can be of critical importance for social media platforms. This is the type of data that is exchanged and sold the most in the real-time bidding process.

Persona & Real-time bidding sales

Now let us tie all these data types together and look at how they are sold. The ways that social media platforms sell all three data types can be broken down as follows:

Data is sold in a:	Data type
User-specific online persona	Demographic data + Preference data
Real-time bidding sale	Behavioral data

Real-time bidding is an important sales process that happens between social media companies, advertisers, and users. Real-time bidding is defined as, “the process by which publishers auction off ad space in their apps or on their websites. In doing so, they share sensitive user data… with dozens or hundreds of different [advertisement technology] companies.” (Cyphers, 2020). When you log onto Facebook, Instagram, or visit any website that has targeted advertisements, your attention is quite literally being auctioned off in the background. Data brokers (advertisement technology companies) match your previously purchased online persona to what you are doing online at any given time and sell your online whereabouts to advertisers who want their ads to be placed in front of you. This process happens billions of times daily all over the globe.

Data collection and sale ethics

The collection and sale of personal information of any kind; demographic, preference, or behavioral, carries massive ethical implications. While the ability to collect these types of data on paper and online has been around for decades. The ability to monetize from that data has been strictly and effectively regulated for some industries, like transportation and mail-service. Companies like the United States Postal Service, FedEx, and UPS are legally prohibited from

storing or selling any data collected from their customers (Hurwitz, 2020). Social media companies have used complex legal loopholes to get around restrictions on selling user data. The most prevalent tool that platforms use is the "terms and conditions" agreement that every platform makes you accept when creating an account. A recent study found that only 1% of participants thoroughly read the terms and conditions (Chivers, 2020). This means that any website can convince 99% of its visitors to surrender rights that they would normally opt to keep simply because users do not read the terms and conditions. Social media platforms 'terms and conditions' are contracts that usually waive selected privacy rights protected by U.S. law. Some of the rights you surrender are, "permission to use content you create and share… permission to use your name, profile picture, and information about your actions with ads and sponsored content… permission to update software you use or download," (Meta Platforms, Inc., 2022a). These agreements are legal, and their existence poses no ethical dilemma. However, when you realize that 99% of social media platform users are completely unaware of the rights they surrender via agreement, these companies cross into muddied waters. These companies are taking advantage of legal means and user inattention to capitalize on the subsequently surrendered rights of users.

Cambridge Analytica scandal

Companies have not been able to totally escape legal trouble from these ethical transgressions. A scandal involving former data analytics company, Cambridge Analytica, showed how vulnerable Facebook's terms and conditions make their users to deception and manipulation. This company was found guilty of using, "the personal data of up to 87 million Facebook users" to inappropriately influence over 46 United States elections (Salinas, 2018).

This data was gained through a Facebook app that took advantage of how easy it is to collect sensitive user data on Facebook as a third-party company. Cambridge Analytica was dissolved in 2018, and in 2019 Facebook was fined five billion dollars by the Federal Trade Commission for privacy violations in connection with the scandal (Wong, 2019). This fine is one of the largest fines ever imposed by the Federal Trade Commission.

The Cambridge Analytica scandal highlights how manipulative the relationship between Facebook and its users can be. It also reveals the key ethical dilemma that faces Facebook. Do they enact manipulative terms and conditions agreements to gain access to data they need to satisfy their current extractive business practices? Or do they avoid exploiting user information, harm their bottom line, and dissatisfy their shareholders and investors? Facebook's answer to this dilemma and others that concern their bottom line has been something like: *if we do not take these advantages, other companies will, and we will lose our competitive advantage*.

Algorithms, bias, and manipulation

As one saying goes, *perception is reality*. But how does this apply to our social media dilemma? Let us start with the premise that social media uses algorithms to show users content based on likelihood of engagement (for profit motive), and alignment with corporate values (value motive). Social media platforms operate on these two motives to censor or "moderate" content and creators that do not align with their values. They also "boost" or "amplify" content that aligns with their profit and value motives. These two motives on their own produce no great ethical transgressions. Now consider the scale that social media platforms operate with. As of October 2021, Meta Inc. alone reaches 3.6 billion users every month (Richter, 2021). With this

scale, I would argue that social media platforms have a civic responsibility to support full freedom of speech and equally represent all viewpoints, or at least make a good-faith effort to do so. I argue that social media companies do not operate with the motivation of protection of free speech, but certainly should be responsible for protecting free speech because they provide the means of online speech to a majority of the American public. In 2021 there were 235 million American Facebook users (Degenhard, 2021) and 332 million Americans (United States Census Bureau, 2022), meaning that ~71% of Americans accessed their right to free speech just through Facebook last year. In the words of Facebook whistleblower, Frances Haugen, "Right now, Facebook chooses what information billions of people see, shaping their perception of reality," (Haugen, 2021).

The ethical transgression perpetrated by Meta (Facebook) and others is that they do not protect free speech like they should. They control the availability of content to their users based on profit and moral motives, which influences user perception of the topic at hand by limiting or promoting certain content, this influence over perception changes how users view the reality of a certain topic. In plain English: if I can control the information you have on a given topic, I can manipulate and greatly control how you perceive the reality of that topic. *Perception is reality*.

For example, if I tell you a story about a man who beat a dog with a bat on the street outside his house because he wanted to, you might tell me that this man is cruel or a psychopath, or that he has no soul. You might perceive the reality of this man to be terribly negative. But if I tell you a story about a man who was in his garage when he saw a dog attacking a young girl, heroically grabbed a bat and beat the dog off because he wanted to save the young girl's life, you might tell me that this man is selfless or brave, or that he is a local hero. In both versions of this

story, I selectively amplified and suppressed certain aspects of the story which controlled your perception- your reality of this man. Social media performs similar amplification and suppression tactics millions of times a day. I believe that instead of promoting one side or the other for any reason, social media should promote all the available information on a topic to allow users to reach their own conclusions. I believe that this approach would promote a deeper overall understanding and comprehension within our society, and foster, instead of inhibit, our democratic process.

So why use algorithms to control the flow of content? Due to the sheer volume of content created, algorithms, not individuals are put in charge of content governance and moderation. To refresh, an algorithm is a "technical means of sorting posts based on relevancy instead of publish time, in order to prioritize which content a user sees first according to the likelihood that they will actually engage with such content" (Golino, 2021). This definition is functionally true, but there is a great deal of ethical ambiguity with figuring out how to convince users to "actually engage," with content. This ties back to the discussion about motivations to censor or amplify content.

It might be tempting to think that a computer program operating on strictly defined rules (i.e. an algorithm) might be an impartial judge of content that enforces and upholds freedom of speech for all, and gives the right amount of viral power to critical issues. Sadly, there is evidence to support the contrary. Social media algorithms have become tools to deliver biased content and give viral power to content that is divisive an incendiary because it is the most profitable.

Intrinsic Bias

How do algorithms become intrinsically biased to promote or censor certain content? In short, the programmers themselves have biases that end up expressed in the program. Programmers write algorithm rules about language and content moderation based on their values and the values of their company at large. An algorithmic rule about language that is allowed or disallowed implies an expression of certain values. So, rules are programmed into these algorithms that favor certain positions and types of content over others. An example of this would be how companies define "hate speech." When programmers write an algorithmic rule that censors a certain phrase or word because the programmer defines it as "hate speech," the programmers assert that the phrase or word has a value of hatred. At the same time the programmers assert that their values are opposed to hatred. A research example of programmed intrinsic bias can be found in Google search results. "Google search results – which dominate search in the U.S. and worldwide – were significantly biased in favor of Secretary Clinton in all 10 positions on the first page of search results in both blue states and red states," (Epstein, 2022). Search engines like Google are algorithmically similar to social media platforms in that they have programmed rules based on language and words, and ultimately the sentiments or values attached to those words. It is unethical to ignore the known intrinsic bias of a tool that so many people use to access their right to free speech and information.

The power of virality

Virality, "the tendency of an image, video, or piece of information to be circulated rapidly and widely from one internet user to another," contains one primary variable ("Virality", 2005). This variable is: *how often the content is shown relative to other equally relevant content*. Virality encompasses both content promotion and censorship. It can be useful to think of virality

like a coin. When the coin is standing on edge, the "viral coefficient" of a piece of content is zero. A zero viral co-efficient would effectively mean that an account or person's content has the ability to reach their followers and others who would "naturally" come across their content. This could be from self and partnered promotion or other user tactics, but includes no additional push either way from the social media platform via algorithmic biases or direct programmer intervention. This zero viral co-efficient could also be appropriately termed "natural content reach." When the coin falls to show tails, the viral coefficient would be negative one – censorship. When the coin falls to show heads, the viral coefficient would be positive one – promotion. When you flip a real coin, the probability that it lands on the 'promotion' or 'censorship' side is even. Perfectly up to chance. The virality "coins" for pieces of social media content are weighted by the intrinsic bias of the algorithms towards promotion or censorship. Some social media companies have admitted to their control over viral power. "Freedom of speech is a fundamental human right – but freedom to have that speech amplified by twitter is not," (Twitter, Inc., 2022). "We remove millions of violating posts and accounts every day on Facebook and Instagram. Most of this happens automatically, with technology working behind the scenes to remove violating content," (Meta Platforms, Inc., 2022b). These two direct quotes demonstrate that social media companies wield immense powers of censorship. Keep in mind that these companies have total control over defining what violating content is and have secured the legal rights to limit your speech in any way by defining speech as a violation, through terms and conditions agreements.

Is controlling content virality ethical? First, it is possible to create effective algorithms that deliver relevant content to users without introducing bias. It is possible to write rule sets that

filter results based on similarity to a search input. Deciding how much viral power a piece of content has based on any other motive than protecting free speech can become marginally unethical. The point of amplification or censorship is to influence users in a certain way, and influence is tied intrinsically to manipulation. Basing viral power on biased values instead of impartiality is unethical. This means that social media platforms can decide who gets to be heard and who does not. Therein these algorithms violate the freedom of one's online speech. Holding viral-power-control over great volumes of information is to hold sway over the opinions and perception of the public. Instead of weighing the virality coins for content with algorithms, social media platforms should strive to stand every coin on end and leave freedom of speech untarnished.

Additional manipulation tactics

Former Design Ethicist at Google, Tristan Harris does an excellent job of summarizing some of the manipulative tactics that are used on a variety of platforms:

- Netflix exploits our reliance on stopping cues to keep kids and adults alike binge watching and losing sleep.
- "Likes" and "filters" exploit teens' need for social validation and approval from others.
- Notification sounds ("you have mail!") exploits operant conditioning and habit formation to expect frequent rewards.
- Infinite scrolling feeds, "pull to refresh" notifications are designed to operate like slot machines, offering "intermittent variable rewards" as you check for notifications, maximizing addiction.
- Moral outrage exploits our vulnerability to anger, fast agreement, and desire for tribe membership.
- Fake news and conspiracy theories exploit our need for significance and confirmation bias -- that what we feel is more important than what we think.

- Deepfakes (including bots, deeptext, etc.) exploit the shortcuts our brains rely on to discern what is authentic or trustworthy, and have now become completely and fundamentally indistinguishable from the real thing. This is a trust-breaking deception. This is "checkmate." (Harris, 2020)

Heart of the Dilemma

Definitively determining right from wrong in the context of an ethical dilemma is impossible. But I believe the dilemma at hand can be clearly defined from the perspective of ethical utilitarianism. By asking, how can social media companies "maximize happiness and well-being for the most stakeholders," not just their shareholders (Duignan, 2020)?

Let us look at Facebook again, from May 2012 to May 2021 Facebook stock price rose from $38.23 to $315.94 (Meta Platforms, Inc., 2022c). This resulted in an average annual growth percentage of 72.6% per year. To compare, the NASDAQ composite average annual growth percentage over the same period was 35.0% (Macrotrends.com, 2022). Facebook has clearly been satisfying its shareholders and investors, but at what cost to Facebook's users? As we have seen previously, Facebook recognizes that 12.5% of its global users are addicted to using Facebook and have directly reported "lower well-being" (Haugen, 2021). This is a clear violation of utilitarian ethics, an approach that seeks to maximize well-being, not lower it. Facebook has ignored utilitarianism and engaged in wrongdoing for the sake of investor satisfaction and financial success. As detailed above, social media has based its monetization strategy on extracting as much data and attention as possible from their users, using manipulative tactics. Social media companies are motivated to maximize profit and advance a biased set of values without regard to the health and civil liberties of their users. The very purpose that social media

companies espouse, “bring us closer together and build a global community” is misaligned with their manipulative, harmful actions (Meta Platforms, Inc., 2022b).

All the situations described above indicate that there are significant incentives and risks pressuring companies like Facebook, Twitter, and the like to make ethically poor decisions. After all, *the road to hell is paved with good intentions*. Meaning, the decision makers at social media companies likely believe that they are doing the right thing for at least one group of stakeholders. Now that we have defined what is happening in the ethical landscape of social media, we can move on to dissecting how external forces and incentive structures helped create unethical social media environments.

How did social media devolve?

Figuring out how the social media situation has progressed to such a poor state could be its own research topic. For the purposes of this paper, we will focus on two key factors that have contributed to the devolution of social media. Once again, we will focus on taking the perspective of the company and more specifically, upper management at social media companies. We will begin by discussing the inadequate job that the U.S. Government has done with regulating technology companies. It is useful to work from the outside in when considering the devolution of social media operations, because it allows us to set the regulatory stage that social media company management performs on.

Political Influence

There are more than a few reasons why United States regulation of social media companies is inadequate. Political allegiance and campaign donations to key regulators is one. As far as recent presidential campaigns have gone, in 2016, the top contribution to Hillary Clinton's campaign was from Google parent company, Alphabet (Epstein, 2022). In the 2020 presidential election, the number two contributor to Joe Biden's campaign was the Freedom Forward USA political action committee (FF PAC) ("Top Contributors", 2020). This PAC is funded primarily by social media and other tech company presidents and CEO's ("Future Forward", 2021). "In 2020, FF PAC received several contributions from high-profile Democratic donors including Facebook co-founder Dustin Moskovitz ($91,780,000), [and] former Google CEO Eric Schmidt ($775,000)." This spending by Facebook and technology company CEO's is not benign either. "FF PAC reportedly spent $108 million in a 'blitz' of spending during the last five weeks of the 2020 election to support President Joe Biden's campaign". Just this small sample of similar contributions signals a strong monetary connection between key political figures and social media company leadership, which would work in favor of the social media companies' goals.

Ineffective regulation

Another key reason for poor tech regulation is the difference between the speed at which technology can evolve, and the speed at which our government can regulate technology practices. The 'regulation lag' between an economic phenomenon and related regulation is a well-known relationship. This issue is especially important for technology, software, and social

media companies given their ability to rapidly create updated technologies that do not rest underneath the umbrella of regulations. An example of this dichotomy can be found in the speed at which certain defense technologies have been regulated. Regulations for the export and sale of nuclear and missile technology, “were largely established during the 1970s. But it was not until 2009 that serious reforms were undertaken,” (Ennis, et al., 2019). In this time period of thirty-some years nuclear and missile technology evolved significantly, and many forms of weapons technology were developed and sold without regulation until the 2009 reforms. Similarly, it took eleven years for regulations on foreign investment in sensitive technologies to be updated (Ennis, et al., 2019). Given that entire generations of social media software regularly last less than two years, and significant updates to algorithms happen quarterly or even monthly, regulators simply cannot keep up.

America is not alone in their quest to regulate social media. European countries are creating their own regulations, and they are doing so faster and more effectively than the United States. The EU has been enacting unified and timely regulations covering monopolization, content moderation, privacy, and artificial intelligence while the U.S. has only introduced minor bills in any of these categories and has largely left regulation up to individual states (Gold, 2021).

Large social media companies have created a situation where key politicians are dependent on their funding for their campaigns. In addition, social media companies can innovate and craft software much faster than the U.S. government can regulate. Finally we know it is possible to regulate these companies in a timely matter because the European Union is doing exactly that.

Management evolution

Now the regulatory stage has been set for social media companies to operate in manipulative ways without meaningful intervention. Let us give social media companies the benefit of the doubt and consider that these platforms started out with the best intentions: "to build community and bring the world closer together" (Meta Platforms, Inc., 2022d). We have now seen that Meta and others have done quite the opposite. How did this happen? Surely, we can trust well intentioned firms to do the right thing in the absence of government regulation, *right?* Sorrowfully, having the best of intentions does not protect a company's management from economic pressures or other conditions that may overpower their pristine aims, or lead them astray from their original goals. This section will examine some of the major external and internal pressures upper management at social media companies face, and how those feed directly into the decaying state of social media ethics.

The race to the bottom of the brainstem

The first overarching contributing factor up for examination encapsulates a large external pressure of competition that a single company might face. There are many factors that companies compete on. Physical location, price-point, market share, resources, or even abstract concepts like who sells the most "luxurious" car. The competition between social media companies is a competition for a key resource. Chiefly, "user attention" or "user engagement." Often expressed as a length of time, per user, per period; this is the resource that social media companies sell to advertisers. Companies have to stay competitive at extracting this resource from users to remain

profitable. This has led to a push and shove battle for attention called the race to the bottom of the brainstem.

To refresh, a race to the bottom is, “a situation characterized by a progressive lowering or deterioration of standards, especially (in business contexts) as a result of the pressure of competition,” (“Race to the bottom”, 1974). The race to the bottom that social media companies like Meta and YouTube are engaged in is one that involves eliciting strong responses, i.e. “user engagement,” from our strongest, most primal emotions. Emotions that originate from relatively older parts of the brain, far away from the rational thought centers of the brain in the pre-frontal cortex (Harris, 2020). Whichever company can extract the most or strongest engagement from the “bottom of the brainstem” becomes the hypothetical winner. And so we get the race to the bottom of the brainstem.

The revenue generation models of these companies depend on them extracting more attention/engagement every quarter to support their profits. This is how we ended up with the frequent, tactical changes to algorithms that enable social media to stay so far ahead of regulation. In addition, this race to the bottom has put growing pressure on social media management to compete financially, and when pressure to survive as a company grows, the focus on doing so ethically shrinks.

Frances Haugen

Now that we have the proper regulatory and competitive frame of reference, let us take a look inside Facebook and see how these pressures played out at the biggest of the big social media companies. In early 2021, a Facebook lead product manager named Frances Haugen left the company and took with her over 10,000 documents of internal research and documentation of

operations of Facebook (Perrigo, 2021). She leaked this treasure trove of internal documents to The Wall Street Journal, The United States Congress and subsequently testified before Congress in October of 2021. A list of the claims that these extensive documents represent is compiled below.

1. "I have worked as a product manager at large tech companies since 2006, including Google, Pinterest, Yelp and Facebook. My job has largely focused on algorithmic products," (Haugen, 2021).
2. "Facebook has the potential to bring out the best in us. […] I believe that Facebook's products harm children, stoke division, weaken our democracy."
3. "I saw that Facebook repeatedly encountered conflicts between its own profits and our safety. Facebook consistently resolved those conflicts in favor of its own profits."
4. Frances Haugen ended her career at Facebook on the civic-integrity team. Civic-integrity's oath was to, "serve the people's interest first, not Facebook's," and "just a month after the 2020 U.S. election, Facebook dissolved the civic-integrity team," (Perrigo, 2021).
5. It was after the dissolution of civic-integrity that Frances Haugen left Facebook and leaked documents to Congress, The Wall Street Journal, and other parties.

If true, the claims above clearly demonstrate that Facebook management operates under pressure to be profitable and ignores the rights and health of its users. Facebook made conscious decisions to abandon ethical algorithm fixes and ignore their harmful impacts for the sake of profitability. Facebook even went as far as dissolving the team charged with ensuring that Facebook operated with integrity.

Identity & Socialization

When taking a closer look at the internal social and psychological factors affecting governance at social media companies, it leads us to organizational identity and socialization. The effect of tying one's identity to their organization has significant effects. Social Identity Theory (SIT) claims that "people tend to classify themselves and others into various social categories, such as organizational membership, religious affiliation, gender, and age cohort," (Ashforth & Mael, 1989). This theory also states that, "social identity may be derived not only from the organization, but also from his or her work group, department, […] and so on." This theory reflects what many of us know intuitively; people often tie their identity to groups they are part of, including their company or organization. This can often lead to a sort of "corporate tribalism." When the aforementioned effects of competition are added to the mix, the profit priorities of the group/company may start to supersede less competitive, but more ethical initiatives. Employees with strong identity ties to their organization may be more willing to enact and endorse projects that help the organization and neglect the needs of users. "SIT provides a mechanism whereby an individual can continue to believe in the integrity of his or her organization despite wrongdoing by senior management," (Ashforth & Mael, 1989).

Another similarly important mechanism is organizational socialization. This mechanism is defined as: "a learning and adjustment process that enables an individual to assume an organizational role that fits both organizational and individual needs," (Chao, 2012). There are effects of this process that are widely agreed upon. Among them is the cascading effect of homogenization in a company's upper management. "Many professional career tracks are so closely guarded, […] that individuals who make it to the top are virtually indistinguishable,"

(DiMaggio & Powell, 1983). “To the extent managers and key staff are drawn from the same universities and filtered on a common set of attributes, they will tend to view problems in a similar fashion, see the same policies, procedures and structures as normatively sanctioned and legitimated, and approach decisions in much the same way,” (DiMaggio & Powell, 1983). This homogeneity in management approach can have dangerous side effects if the corporation’s culture centers around ruthless success and profiteering, and neglects to focus on user health. Thanks to whistleblowers like Frances Haugen, we have demonstrated disregard for user health by at least Facebook upper management. Furthermore, Facebook financial statements and other actions clearly show that they are a profit-motivated company. In short, managers tend to hire other managers who think and act like them towards the same motives. At Facebook, this mechanism has contributed to the disregard of ethics for the sake of maximizing profit.

Although psychological and managerial theories concerning corporate culture abound, this paper is not an examination of corporate culture at social media companies. However, corporate culture at Facebook, Twitter, and Snapchat has been described as “strongly cult-like” (Rogan & Martinez, 2022). The cultish or homogenous behavior patterns of social media companies can be partially explained by the theories of organizational identity and socialization.

How did users contribute

The billions of monthly users also share some responsibility for the state of social media in America. Every day users post divisive and incendiary content. They are the source of the material that can have such poor effects on people. But just because they create negative content does not mean that they are fully responsible for its impact. Especially if there is an entire system

that picks up and delivers that controversial content to millions of other users outside the content's original expected circle of influence (positive virality).

Complacency for data loss has added to the exploitation of users. The excuse often heard is: *I have nothing to hide, what does it matter that they have my data?* This is a logical fallacy. The data that social media companies have about you does matter. Forfeiting your data gives them a substantial opportunity to quietly manipulate you and billions of others towards their own goals. Sacrificing the amount of personal data that you do gives companies the ability to perform "corporate stalking." If an individual unwillingly gained access to the volume and types of data that social media accesses, they could be convicted in a federal court of stalking.

Social media's plan to use our psychological weaknesses against us is very well planned, funded, and executed. Many of the issues with social media platforms lie beneath the surface and are only visible once you pull back the scope and analyze larger trends in datasets. So, while users have had their role to play at every step of the way, I would argue that they are no more to blame for unethical social media than a cow on a farm is to blame for emitting greenhouse gasses. Both the social media user and the livestock are only doing what is natural to them.

Possible ethical monetization strategies

At the beginning of this paper, I promised to maintain a realistic point of view when it came to proposing ethical monetization strategies. I have come to realize that if I am to maintain my strict realism, I would have little to add to the concluding section of this paper. The strong pressures that act on management, along with their continually reinforced manipulative patterns of behavior make an ethical way forward unlikely for most companies. For example, Mark

Zuckerberg has near total control of Meta Platforms, Inc. There have been entire books written in order to psycho-analyze his behaviors, and often they have concluded that he is a man determined for technological domination, unconcerned with the health of his users (*An Ugly Truth, Behind the Mask of Facebook*). A man, rather, a manager like Zuckerberg is unlikely to change. But I digress. Granted that change from within is unrealistic, I am presenting two solutions that a large social media company could implement from within. The first, a significant structural change to product offerings. The second, a narrower tactical solution encompassing changes to current platform algorithms, and a marketing re-position.

Structural - Software packages

Currently, most major social media companies only offer one major product/platform to their users. In general, social media companies offer a single platform (e.g. Facebook, Twitter) that is optimized for the single goal of user engagement and revenue extraction. My first proposal to solve the unethical monetization issue is to offer a range of platform packages, each optimized towards a different user goal. A hypothetical example of what these platform packages could look like is summarized below.

Platform software package	Optimization goals	Target user market	Primary software features	Monthly price est.
Standard	User engagement/ revenue extraction	Persons > age 13	• Infinite scroll • No forced/suggested breaks • Fully targeted advertisements • Fully personalized content feed	$0.00
Kids	Education & Healthy interactions	Persons < age 16	• Limited scroll • Suggested/forced breaks • Platform offline after “bedtime” • Age targeted advertisements only • Full parental controls • Content feed personalized by selected educational interests • No beautification filters	$0.50 - $1.50
Friends & Family	Family & Community connection	Persons > age 30	• Limited scroll • Suggested/forced breaks • No advertisements • Content feed delivers friend and family-created content first	$2.00- $4.00
Common ground	Unbiased content delivery & understanding	Persons > age 18	• Limited scroll • Suggested/forced breaks • No advertisements • Content feed delivers multiple perspectives per issue • Public discussion board for each topic • Censorship limited to strictly illegal content*	$2.00- $5.00

A change similar to this is likely the most practical solution of those discussed for any large software company to implement. The Frances Haugen leaks provided us with proof that there are competent programmers who want to write networking software optimized for user health (Haugen, 2021b). Meta Platforms does have the resources and capital available to introduce new packages of software. As of December 31, 2021, Meta Platforms had

$16,601,000,000 in cash and cash equivalents on their balance sheet (Meta Platforms, Inc., 2021). This solution also makes possible the recapture of users who no longer use their social media accounts due to awareness and dissatisfaction with the current platform optimization goals, or the associated unintended effects of platform use.

This solution may also be within the realm of possibility because it aligns with the active-user growth goals of the social media industry. For example, Facebook currently does not allow persons under the age of thirteen to create and use an account (Meta Platforms, Inc., 2022a). If Facebook could create a platform that is safe and beneficial for the use of children, then Facebook could increase the number of active users on the platform and gain positive sentiment and platform loyalty among younger audiences.

Creating multiple optimization goals and software packages within a single platform would create a wide range of additional problems. But this solution would potentially solve a few ethical issues that exist with current forms of social media. Keeping the “Standard” software package would allow a current platform to continue to monetize in its traditional fashion, and enjoy the profits associated with that monetization method. Adding the other proposed software packages would enable a social media company to admit to the flaws in the current platform design while offering partial solutions to those flaws. This would represent a large ethical improvement in the way that social media operates.

The “Kids” software package would attempt to directly mitigate the mental health effects of social media. Removing beautification filters could help combat body dysmorphia. Forcing users to take breaks could combat social media addiction. Making the platform unavailable during the night, when children should be sleeping would help combat sleep disruption in young

users. Creating a feed that focuses on educational content would help turn social media into a tool for education, rather than a distraction from it.

The “Common ground” software package could protect free speech by limiting censorship to only illegal speech as defined by the law, instead of censoring or promoting content and ideas based on values. Providing discussion boards for key topics that feature content from multiple perspectives would bolster healthy online conversations. This would be an improvement over the negative feedback loops that feed into online radicalization. A negative feedback loop in terms of social media is a process by which users seek out and associate with content and profiles that support with their views and values, and avoid content and profiles that do not. These negative feedback loops are encouraged by social media algorithms, and have been proven as a contributing factor in political radicalization online (Harris, 2020).

Overall, introducing multiple software packages, each with their own optimization goal while keeping a platform’s “standard” current software package would be broadly beneficial. It would give a social media company opportunities to recapture lost users and gain new ones. It would also allow a social media company to directly combat ethical issues concerning social media addiction, health issues, freedom of speech, and online radicalization while likely having an acceptable impact on the bottom line.

Tactical - Ethical algorithms

A second strategy that companies could employ to make their product more ethical is a set of narrow tactical changes to the algorithms, along with a marketing re-position campaign. Rewriting algorithms that social media platforms operate on to be “more ethical” could come in

a few forms. This paper has already substantiated that current social media algorithms contain intrinsic bias, manipulate user content based on company values, and negatively impact user mental health. Adjusting algorithms and software programs could have a significant positive impact on all of these issues.

Algorithm changes to counteract intrinsic bias would be the first necessary change under this plan. As covered earlier, writing rules that censor or promote content based on personal and company values is an expression of intrinsic bias, and bias is present in the algorithms of social media platforms. This change could encompass a review of algorithms by company programmers and ethics officers. These officers would first identify rules for review, then work with programmers to understand how the rules function, and finally suggest and implement changes to limit the intrinsic bias in the identified rule sets. Creating less biased algorithms could limit the undue censorship/promotion of pages based on specific company values and agendas. This, in turn would mitigate the ethical issues around content manipulation.

The second step in an ethical algorithm project would encompass improvements for mental health. Some of features that social media contains that harm mental health are not algorithmic in nature but are programmed features. For example, beautification filters. The availability and use of these filters has been proven to be harmful, so removing beautification filters from a platform altogether could lead to a significant improvement on user mental health (Keles et Al., 2019). Measures to counteract social media addiction should also be implemented in this solution. Namely, doing away with the infinite-scroll feature that many platforms now utilize. Additionally, implementing pop-up notifications suggesting a break from social media could decrease addictiveness. Infinite scroll is a feature that places content in front of users from

accounts they do not follow, so that even when a user has "caught up" on the accounts they follow there is an additional, never-ending stream of content for them to engage with. This feature could be replaced with the now-defunct "you're all caught up" or "limited scroll" feature that stopped the content stream once users scrolled past all the recent posts from accounts they follow. Additionally, adding an intermittent pop-up that suggests users take a break at intervals of constant use would also be beneficial for mitigating addiction. These changes would encourage a healthier level of interaction with a platform and decrease the potential for users to become addicted.

Marketing re-position as ethical social media

After making the tactical improvements to platform algorithms mentioned above, a company could embark on a marketing mission to re-position their platform as an ethical platform. Being transparent about a mission to create an ethical and healthy platform would lend a sense of credibility and transparency that is absent from most perceptions of social media platforms today. This re-position marketing content would need to include transparent disclosures of all changes made to algorithm tactics.

External Accountability

Although this essay focuses on internal solutions for social media companies, it is worth mentioning that there are many external solutions that could be imposed upon social media companies. There are opportunities that the United States government has to regulate directly or through the creation of an independent association or review board. There are also possibilities for independent groups to combat social media platforms in creative ways. Worth mentioning

here is the work of Dr. Robert Epstein and the American Institute for Behavioral Research and Technology. Among other projects, this group conducts monitoring studies on the effects of biased search engine suggestions on election outcomes (Epstein, 2022). This group has completed multiple large studies in an effort to prove that Google is manipulating election outcomes using search suggestions. Once the results of these studies were made public only in the state of Georgia, the search bias for study participants in Georgia was essentially 'turned off,' and search suggestions in that state provided objectively neutral results. A similar approach could be applied to social media companies to expose the bias and manipulation present on major platforms.

Conclusions

For social media companies

Social media has changed the world in so many ways. It has provided the ability to share, learn, and help one another in an unprecedented volume. It has also afforded users significant opportunity to harm one another mentally and sometimes physically. Social media is also largely to blame for the harm that has been resulted from their platforms. They are more to blame when their management repeatedly makes blatant ethical transgressions by allowing the platform to persist as a vehicle for addiction, when solutions are readily available. Furthermore, manipulating and censoring individuals because their ideas and values oppose that of the company is a clear violation of free speech, especially because social media platforms are a

means that billions use to access their right to free speech. Social media companies must begin to operate in a more ethical manner, or at least make a good faith attempt to improve themselves because the public that endures the bulk of their harm cannot rely on government to do a proper job of regulation.

For users

Users of social media around the world are being taken advantage of by social media companies. Platforms use human psychology and turn it against the user by using incentive structures and other psychological tactics. Users get addicted to social media easily, and users end up sacrificing hours each week for extraordinarily little personal benefit. The benefit to the company, however, is tangible income. Additionally, when using social media platforms as a tool to use free speech rights, users enter into legal agreements that allows their speech to be limited and censored. This is clearly not in the best interest of users.

I find it helpful to look at social media as an addictive substance like alcohol. To many, alcohol can be enjoyable. It can be of social and emotional utility when used responsibly. But it can also become problematic. Alcoholism is a crippling and fatal addiction for many drinkers. We spend progressively more time online today and are poised to make significant strides into more immersive technological platforms, like the Metaverse. These companies are going to keep getting better at harnessing and keeping your attention, and they are going to get better at influencing you in subtle ways. In alcoholic terms, the average bottle on the shelf is getting stronger and more addictive with every batch produced.

I believe that users can do better by themselves and by their community. To use social media in a healthy capacity and an appropriate manner. To resist addiction and use their precious little time alive on this planet to improve themselves, their families, friends, and communities. Thank you for reading, and please, scroll responsibly.

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