

Modern Society's Embrace of Social Media

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Over the past several decades, society has witnessed an unprecedented explosion of technological advancement, especially with regard to the creation of the Internet, its expansive digital ecosystems, and its global infrastructure. The Internet that we know today was born in 1989, when Tim Berners-Lee created the World Wide Web (WWW). He published the first website in 1990, and in 1993 the WWW was released into the public domain. By 1994, roughly 11 million American households were online (*Americans Going Online*, 1995, *World Wide Web Timeline*, 2014). Suddenly, in less than 30 years, the Internet grew to connect half of all humans on Earth (*The Age of Digital Interdependence*). At the start of 2024, the Internet was estimated to connect over 5.3 billion people, almost two-thirds of humans on Earth (*Digital Around the World*).

Social media has numerous benefits; for example, the Department of Homeland Security wrote that during Hurricane Sandy, “the degree to which the public [used] social media for communication... was so great that the benefit of using [social media] became too great to ignore” (*Lessons Learned: Social Media and Hurricane Sandy*). Our increased presence within digital ecosystems has allowed us to provide and receive critical information in real time; unfortunately, this has also led to the emergence of dark sides of social media. It is well documented, yet not plainly understood, that the sex trafficking industry’s growth and evolution is intertwined with that of the Internet (Verham, 2015). Therefore, since social media platforms are undeniably part of the internet, they directly enable sex trafficking. Since social media reaches billions of users, it is imperative that we tenaciously investigate the effects of its use on individual and societal health (Bottorff, 2023).

This paper intends to further the debate as to whether or not the platforms provided by large technology companies are generally constructive or destructive. Secondly, this paper will explore what enables the existence of social media platforms and the factors that motivate their creation and expansion. Primarily, I will show that social media platforms, through collaboration between government, corporate, and nonprofit entities, intentionally sacrifice user health in favor of profit and are more damaging than they are useful.

Methodology

This paper is built on actor-network theory (ANT), while several supplementary research methods are used. First, a literature review of news articles and scientific journal publications provides background information about the network's operation and generally destructive nature. Case studies follow, which examine The Information Technology and Innovation Foundation (ITIF), the American lobbying industry, and Meta Platforms, Inc. These case studies explicitly illustrate the relationships through which traditionally unseen actors in the network collaborate to sustain its existence and ensure its health. A final review of the factors that motivate actors to embrace social media platforms is coupled with an ethical discussion that evaluates the true nature of this actor network.

ANT is well-suited for use in an analysis of social media, first since social media fuses our physical actions, hobbies, and relationships with our technological lives, and therefore involves human and non-human actors. Moreover, social media algorithms function as if they are cognisant, as they constantly learn from users' habits to gain their attention in a way that a person might (Golino, 2021, Trivette, 2022). ANT is useful in dealing with these algorithms because their human and non-human attributes make them otherwise difficult to characterize. This research also covers large numbers of individuals who act as well-defined groups, such as

users and government organizations, whose actions can be effectively characterized when considered en-masse. Certain non-human actors, such as server centers, are generally out of sight to the public; naming these unseen structures as actors helps increase the visibility of their power within the network. Case studies are used to bolster this paper's tangibility; it is easier to understand the network when we can assign real names to the acting groups. The literature reviews are necessary to ensure that this paper draws from scientific, governmental, independent, and philosophical sources; this helps build a well-rounded understanding of the topics discussed.

Background Information

This paper deals with the actor-network relevant to social media, which is a subset of that of the Internet. The overlap between the Internet and social media is vast, therefore this research only covers a fraction of the debate surrounding social media. The following list of relevant actors is not exhaustive; however, it is a solid foundation on which to build an analysis. Relevant actors include:

1. Social media users, in the form of the general population.
2. Social media users, in the form of famous influencers and other celebrities.
3. Social media companies, such as Meta, Snap, and Alphabet.
4. Government agencies, such as the FCC, FTC, and Senate.
5. Federal and state courts and their judges, as they relate to the handling of lawsuits in which other listed actors are involved.
6. Marketing/consulting agencies employed by other listed actors.
7. Device ecosystem providers, such as Apple and Microsoft.
 - a. These ecosystems can be thought of as "seen" infrastructure.

8. Infrastructure designers, builders, and operations staff, where infrastructure is data centers, cell towers, undersea cables, etc.
 - a. This can be thought of as “unseen” infrastructure.
9. Cloud-computing service providers such as Amazon Web Services.
10. Scholars/academics who research technology and media.
11. Technology and media think tanks.
12. Mainstream media outlets reporting on technology and social media.
13. Nonprofits who advocate for or against the regulation of large technology companies.
14. Social media content-recommending algorithms and systems.

To understand social media ecosystems, it is important to explain what keeps them operational. Firstly, social media platforms rely on their users, who provide their invaluable attention and data. In 2023, Meta “[generated] more than 95% of [its] revenue from advertising” (Saul, 2023). Without users to view advertisements, companies would not pay Meta to place their ads, revenues would plummet, and the platform would likely be abandoned or drastically altered. Social media platforms are also dependent on their vast networks of physical infrastructure. If tech companies lost the ability to store and transmit data, their platforms would immediately cease to exist. Outages actually happen frequently, as the massive web of infrastructure requires constant maintenance to stay online (Aceto et al., 2018). This implies that actors like data center maintenance staff also play a critical role in sustaining the operation of internet-based platforms.

With a basic understanding of social media’s backbone, we move to review the harm that it causes to society. Scholars across the world have found that social media, especially for adolescents, is highly addictive and that this addiction is associated with numerous health

problems, including anxiety, depression, sleep deprivation, familial tension, bullying, emotional suppression, and more (Flannery et al, 2024, Hammad and Awed, 2023, Nikolinakou et al, 2024, Kurker and Surucu, 2024, Younas et al, 2022, White-Gosselin and Poulin, 2024, Yu and Zhang, 2023). Stanford psychiatrists found that personalized algorithmic content delivery exacerbates addiction and “[releases] large amounts of dopamine into [users’] brains!... just like heroin, or meth, or alcohol” (Goldman, 2021). Social media platforms are also known for violations of user privacy, perpetrated by the media companies themselves and by external researchers (Gilman Ranogajec et al, 2021, Chiauzzi and Wicks, 2019). Privacy violations are worsened by the fact that users rarely understand or read privacy policies and are unaware of the extent of data collection that occurs online (Stieglitz et al, 2018, Hanlon and Jones, 2023).

Social media is also linked to sex trafficking and child pornography. The sex trafficking industry has become more advanced and effective with the help of the Internet, and the growth of each is intertwined (Verham, 2015, Krylova and Shelley, 2023). Social media platforms are used by criminals to groom trafficking victims and receive child pornography online, in large part due to the anonymity and real-time communication channels they provide (Simons et al, 2024, O’Brian and Li, 2020). In 2020, it was reported that “83% of active trafficking cases involved the internet as the primary means of solicitation.” From 2019 to 2022, the top three platforms used to recruit victims were Facebook, Snapchat, and Instagram. Together, they accounted for more than 80% of victims recruited online (Ecker, 2021). The expansion of regulatory oversight for social media platforms lags in comparison to their growth; guidelines and regulations need to be vastly improved to effectively combat online sex-trafficking (Maxwell, 2023).

Another widely debated issue surrounding social media platforms is their contribution to political polarization. Research finds that social media allows users to avoid political content

that they disagree with and amplifies their partisan political opinions (Gainous and Wagner, 2023). Tristan Harris, a former Google ethicist, argues that social media algorithms amplify, rather than reflect, political extremism in the United States (Whitaker, 2022). Apple's CEO Tim Cook said that America cannot ignore social media's cost of polarization (Nellis, 2021). Contrarily, in 2023 it was reported that a series of four studies proved that modifying social media algorithms will not reduce polarization (Nix et al, 2023, Klepper, 2023). These studies measured changes in participants' political opinions after they consumed only chronological feeds for three months. Media reported that algorithmic feeds were found to have no link to polarization, though the studies themselves acknowledged their numerous limitations, one of which being that three months may not have been enough time to accurately determine whether removing algorithmic feeds reduces polarization. Meta partially funded this research and was quick to promote its findings in a blog post (Guess et al., 2023, Clegg, 2023).

Case Studies

The three case studies that follow offer explicit examples of how certain powerful actors collaborate to preserve and grow social media's influence in society. The case studies cover the ITIF, the American lobbying industry, and Meta Platforms. The individual actors mentioned in the following studies are in no way directly responsible for the societal harm analyzed in this paper; they act in a complex network composed of billions of people who share responsibility.

Case 1

Government officials call on non-profit organizations, known as think-tanks, to inform policy decisions and augment conversations around key societal issues. Think tank members are typically academics and professionals, while prominent think tanks are generally respected by those in and outside of government (Parakilas, 2017, *Think Tanks, n.d.*). The ITIF is one

example; it is consistently ranked as the best science and technology think tank in the world by the University of Pennsylvania (McGann, 2017, 2018, 2019). The ITIF's website states that its publications' impacts on American society are far reaching, and that "President Obama established the White House position of Federal Chief Information officer... as ITIF recommended in a 2008 report." The website also includes quotes from senators and congressmen - from both political parties - that directly praise the ITIF (*About ITIF, n.d.*). Summarily, ITIF has a strong influence on US policy makers.

The ITIF states that its mission - to inspire policy changes that drive innovation - necessitates that it maintain a strong sense of "editorial independence" (*About ITIF, n.d.*). Ironically, the ITIF has strong ties to the corporations that are affected by its policy recommendations. The ITIF website lists its financial supporters, which include Meta, Apple, and other tech companies. Moreover, ITIF leaders frequently echo the political and economic opinions of large tech companies. Companies such as Alphabet and Meta are publicly against increased regulation of their platforms; the ongoing disagreements between technology companies and regulators are also covered in popular media (Newstead, 2023, Walker, 2022, Alegre, 2024, Chan, 2023, John, 2023). Two ITIF articles are listed below, along with brief summaries to exemplify the links between ITIF and corporate social media's opinions:

1. "Redefining Privacy Harms Would Unleash a Flood of Litigation" - Ashley Johnson, Senior Policy Manager
 - a. On the case *FTC vs. Kochava*, Johnson takes the side of Big Tech, explaining that if the FTC wins, they would have precedent to "take enforcement actions against companies for privacy violations that did not cause any tangible harm to consumers." She dismisses the idea that the

violation of privacy itself is harmful, and adds that this would have “a chilling effect on all forms of data collection,” which is established as a major revenue source for technology companies, social media companies in particular (Johnson, 2024).

2. Podcast: “Should Section 230 Cover Algorithms? What’s at Stake in Gonzalez v. Google, With Ashley Johnson” - Robert Atkinson, ITIF President, Jackie Whisman, ITIF Chief Development Officer, Ashley Johnson, Senior Policy Manager
 - a. This podcast discusses Gonzalez vs. Google, and whether or not social media companies should be liable for their algorithms’ distribution of harmful content to their users. The ITIF again echoes the sentiment held by tech companies towards this case: Whisman asks Johnson, “if the Supreme Court does rule in Google’s favor, will anything change?” Johnson responds, “I don’t think the debate will end... I’ll be able to breathe a little easier for the time being...” Johnson also cites one of Meta’s briefings and uses it to explain why social media algorithms are generally forces of good (Atkinson et al., 2023).

This conflict of interest is not a new issue; in 2017, a detailed report on the ITIF’s controversy was issued by Gizmodo (Watson, 2017). Several other prominent think tanks, such as the Technology Policy Institute, are funded by the companies impacted by their policy recommendations (*Supporters, n.d.*). In the case Gonzalez vs. Google, the Technology Policy Institute submitted a brief in favor of targeted content algorithms (Lam et al., 2024). Not all think tanks exist as extensions of Big Tech’s corporate interests - many provide expert research

on critical societal issues and aid in the creation of global academic networks (Fraussen and Halpin, 2017, Stone, 2001). Whether agents of positive or negative change, it is established that think tanks' findings have potential to exert a strong influence on state and federal legislatures (Ando, 2023, Lerner, 2018, Tromblay, 2018).

Case 2

The United States Senate defines lobbying activities, generally, as research and other background work “for use in [lobbying] contacts,” which are defined as all oral, written, and electronic communication with an executive or legislative official on behalf of a client (*U.S. Senate: Definitions, n.d.*). Lobbying in the US is considered to be effective at influencing policy (Fagan and Furnas, 2024, Eun et al, 2023, Kang, 2016, Warner and Xu, 2021), though lobbying has been associated with corruption and other issues (Vadakkepatt et al., 2022, Warner and Xu, 2021, Drutman, 2015). Some scholars find that lobbying is ineffective at *directly* influencing policy and is instead used to build connections with lawmakers and for tax purposes (Baumgartner et al., 2014, Bertrand et al., 2014, Richter et al., 2009). Lobbying expenditures and the number of lobbyists in the US have steadily increased since 2016; in 2023, special interests collectively spent 4.26 billion dollars to hire 13,000 lobbyists (*OpenSecrets, n.d.*).

Social media companies such as Meta and Alphabet are increasing their spending on lobbyists at incredible rates. Internet-related lobbying expenditures have increased by more than 75% since 2016, more than double the rate of the lobbying industry as a whole. Meta spent 19.3 million dollars hiring 71 lobbyists in 2023 (*OpenSecrets, n.d.*). Though 19.3 million dollars is a substantial sum, it is a fraction of Meta's 2023 revenue, which was almost 135 billion dollars (*Statista, n.d.*). This large disparity and Meta's spending history suggest that the trend of increasing social media lobbying is likely to continue in the foreseeable future. Meta also

donates to federal political candidates via its political action committee, Meta PAC, and donates directly to candidates in state elections when permitted by the state. Meta states that its donations and lobbying expenditures address “issues important to Meta, including data privacy, content issues related to Section 230, competition... and more” (*Meta Political Engagement, n.d.*). In 2023, Meta’s top lobbying hire (by dollars spent) was Team Subject Matter (TSM), a federal lobbying agency which now operates under the name Avoq. Meta hired 5 TSM/Avoq lobbyists, each for \$320,000 (*OpenSecrets, n.d.*). Avoq’s mission is to “combine communications and advocacy to creatively shape narratives, manage brand reputation, influence national debates and engage [its clients’ audiences]” (*Avoq, n.d.*).

The links between social media corporations and politics are not solely monetary. “Revolving door lobbyists” are those who transition from government offices into the lobbying industry after their retirement from government service (Moran and Litwak, 2021). Below are two examples of revolving door lobbyists who work in the media sector:

1. Kevin Martin, the former Chairman of the FCC, acts as a lobbyist as the head of US Public Policy at Meta (Edgerton, 2021). The FCC is crucially involved in regulatory decision making that affects large technology companies like Meta, Alphabet, and more (Feiner, 2023, *What We Do, n.d.*).
2. The SVP of Government Relations at Avoq (whose name is omitted to underscore the fact that they are not personally responsible for the harms discussed in this paper) was contracted by Meta in 2023. Prior to joining Avoq, they worked as Senator Cory Gardner’s Chief of Staff (*LinkedIn, n.d.*). Gardner served on the Senate Subcommittee for Communications, Technology and the Internet and now serves on the board of a lobbying firm (Merlino, 2019, Gardner et al., 2021).

The ethics of lobbying and revolving door lobbyists are disputed by academics, activists, and politicians (Claypool, 2019, Golden and Cicilline, 2021, Nilsen, 2019). These processes partially remove the boundaries between corporate interests and policy making, and therefore an analysis of them is needed to appreciate social media's ability to influence society.

Case 3

Meta Platforms is one of the most influential social media companies on the planet (Murphy and Tucker, 2023). A case study of Meta's operations serves as a window into the systemic issues that affect social media as a whole. This study will focus on the Meta's numerous internal ethical controversies.

The Facebook Files, released in 2021 by the Wall Street Journal, are perhaps the most in-depth review of Meta's violations of privacy and safety on its platforms. Built upon the thousands of documents leaked by whistleblower Frances Haugen, the expose' offers proof of the fact that Facebook ignores its researchers' conclusions that its business practices are grossly unethical. The files show that while Facebook prioritizes growth and profits, it knows that its platforms are addictive, used by sex traffickers, and much more (Horwitz et al., 2021). Meta CEO Mark Zuckerberg dismissed the WSJ's analysis - which demonstrated his personal responsibility for Meta's issues - claiming that it "selectively [used] leaked documents to paint a false picture of [Meta]" (Duffy, 2021).

Sophie Zhang, another Meta whistleblower, was a Facebook data analyst who uncovered that politicians around the globe used fraudulent Facebook pages to generate fake support for their campaigns. Zhang claimed that her peers failed to act on her findings, which forced her to attempt to independently curtail election fraud on Facebook - an impossible task. She reported that her supervisors told her to stop chasing election fraud and was eventually fired because she

refused to do so. She requested to work for free to uncover political corruption on Facebook and was turned down. Zhang published a memo on her website and Facebook's internal server which detailed her controversial experience - Facebook replaced the internal memo with an edited version and had her website taken down (Hao, 2021, Wong, 2021).

Numerous ex-Meta executives have issued statements about the company's unethical behavior and its knowledge thereof. Tim Kendall, the former Director of Monetization at Facebook, spoke about Facebook's polarizing and addictive nature, as well as Meta's abundant knowledge of these issues (Flores, 2020). Samidh Chakrabarti, the former head of Facebook's Civic Integrity team, asserted that Meta strategically ignores the findings of its researchers and does little to address the problems that it knows are caused by its platforms (Perrigo, 2021). Yael Eisenstat, who used to be Facebook's Global Head of Election Operations, echoes the findings of the WSJ and says that Meta's top executives Mark Zuckerberg and Sheryl Sandberg need to leave the company before any meaningful change can occur (Perrigo, 2021). In 2021, when Facebook's board rejected a motion to remove Zuckerberg as CEO, Zuckerberg controlled 58% of voting shares in the company (Nix, 2021). Today he controls 61% of voting shares (Bary, 2024).

Controversy continues to surround Meta. In 2023, following the Cambridge Analytica scandal - in which Facebook sold user data that was used to build psychological user profiles that aided in targeted advertising for US and UK political campaigns - Facebook settled over 28 million claims for a total of \$725 million (Heawood, 2018, Demers, 2023). In the case *Klein v. Meta Platforms*, it is alleged that Meta unjustly exploits user data to maintain its large advertising market share (Scarcella, 2023). It is also alleged that extensive sharing of user data by Facebook with Netflix was arranged in an exchange where Facebook abandoned its streaming

service and Netflix spent millions of dollars on Facebook advertising (Dunne, 2023). In October of 2023, Meta was sued by over 30 states “for knowingly using features on Instagram and Facebook to hook children to its platforms, even as the company said its social media sites were safe for young people” (Kang and Singer, 2023).

Discussion

After a review of social media’s harmful societal effects, we discuss why certain actors might collaborate so extensively to ensure social media’s health and prevalence in society. The main motivator for social media companies is likely profit - in 2022, Meta earned \$23 billion and Alphabet earned \$60 billion. Their combined 2022 revenues approached half of a trillion dollars - nearly 2% of the entire United States’ GDP (Rao, 2023, *Gross Domestic Product, n.d.*). In 2020, Apple made more in profits than Starbucks did in revenue; Apple claims that it helps employ over two million people across the US (Beard, 2022, *Job Creation, n.d.*). With such impressive profits, stock performances, and company salaries (*Big Tech salaries revealed, n.d.*), it is reasonable to postulate that the money generated by social media platforms significantly contributes to the sustenance of their destructive nature. Platforms are designed to be addictive in order to retain users and increase the advertising revenue that the platforms depend on. Another motivator behind the creation of social media platforms is the data that they generate. Marketing on social media platforms revolves around the ability to send users targeted ads based on the demographic they belong to, a process which is not possible without data gathering and analytics (Evans et al., 2021). Social media data can be incredibly powerful when used in the academic research of social, political, and economic trends (Barrot, 2021, Marti et al., 2019, Toivonen et al., 2019). Social media platforms also hold tremendous value as modern “town

squares”; they allow citizens to engage in conversations about world issues at a scale unattainable without the Internet (Nunziato, 2019, Pond and Lewis, 2019). At a simpler level, media platforms allow users to stay connected with their friends, family, and favorite organizations. They are hubs of creativity and knowledge: countless artists and educators make a living online and advance society in the process of doing so (Greenhow and Lewin, 2018, Ansari and Khan, 2020). It seems that the extreme negative consequences of social media use are often overlooked or ignored for a number of real reasons. All actors in the network do stand to gain monetary, social, and cultural benefits from the use of social media.

Despite the numerous positive factors that inspire actors to embrace social media, the morality and ethics of doing so are shady at best. Social media’s contributions to GDP, employment, social life, and academic research cannot be ignored, though we must ask whether these contributions justify a willful ignorance to social media’s ties to sex-trafficking, addiction, and more; we argue that it does not. The principle that profit and shareholder value are to be maximized at all costs has been around for decades, exemplified by Nobel Prize winning economist Milton Friedman’s *Friedman Doctrine*, “The Social Responsibility of Business Is to Increase Its Profits” (Friedman, 1970). Financial motives can cause people to act irrationally, immorally, and without empathy, and therefore, at the most fundamental level, profit-incentives are at least partially to blame for the gross problems that we see within social media (Northrop, 2013, Lowe et al., 2020). A meaningful restructuring of social media platforms to remove their negative and addictive attributes would likely render them unprofitable at the scale at which they operate today; it may even necessitate the abandonment of existing platforms. Countless actors across the network have large financial incentives to keep social media platforms running, and therefore it should be unsurprising that we see such extensive collaboration between powerful

government and corporate actors to keep these systems alive. Social media is so deeply rooted in modern society that a significant restructuring would be seriously disruptive to global politics and economics and therefore unfeasible, similar to the way that proposals to completely abandon the use of fossil fuels are argued to be unrealistic (Marques et al., 2018, Grant, 2004). Though social media use has tangible non-monetary benefits, the platforms that exist today are profit-driven, profitable because they are destructive and centrally embedded in modern life, and are therefore unlikely to change in any meaningful way.

Conclusion

I conclude that social media - as it currently exists - causes so much harm that its benefits cannot justify its continued use and embrace by society. Certain powerful actors profit off of social media platforms, and they therefore collaborate to maintain social media's addictiveness in an effort to increase profits. Unfortunately, many aspects of modern society are built around social media platforms; for example, they contribute to GDP and foster public discourse. This makes any major restructuring of the platforms - which is necessary to solve their gross systemic issues - incredibly difficult or unlikely. Users hold immense power in that their mass abandonment of social media could force the platforms to be redesigned to be healthy, though this would still be profoundly socio-economically disruptive. The goal of this work is to educate the reader about the physical infrastructure and politico-economic mechanisms that sustain social media's existence, as well as its intensely harmful effects. Future work should research the methods that users can take to protect themselves from these effects, as well as search for other industries that exhibit similarly concerning characteristics. Ultimately, this paper encourages the reader to think critically about the technologies that they use every day and whether those technologies deserve their attention.

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