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Mapping our Digital Dilemmas: Assessing Harms and the Viability of Legislation and Regulation in the United States

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Mapping our Digital Dilemmas: Assessing Harms and the Viability of Legislation and Regulation in the United States

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Keywords: Digital regulation, social media, digital markets, algorithms, artificial intelligence

Introduction

The rapid evolution of information technologies has led to a society with worldwide connectivity, efficiency, and convenience. Yet these technological innovations are not free of perils, as they can also negatively impact our economic, political, and social well-being. This paper analyzes the tradeoffs between technological progress and its potential harms, particularly in the United States. Recognizing the historical benefits of digital technologies while also being mindful of their negative consequences, we highlight the complex market dynamics, political influences, and societal forces that determine whether policymakers can pass legislation and regulatory measures to mitigate the potential harm caused by disruptive innovations.

The research question driving this paper is: How do market dynamics, political influences, and societal forces interact to shape the prospects of introducing effective legislation and regulatory measures for digital technologies in the United States? In the absence of legal frameworks, what alternative entities are there to mitigate a technology's negative impacts?

The research methodology entailed a comprehensive analysis of the scholarly literature and a review of secondary sources related to digital technologies. Synthesizing insights from academic works, reports, and studies, this paper analyzes the multifaceted forces influencing the introduction of legislation and regulatory frameworks for digital technologies in the United States.

The paper is organized into five main sections. The first three focus on the negative effects of digital platforms on digital markets and the political and social spheres. We discuss how the structure of the forces in each of these three areas can prevent the passing of legislation and the regulation of large tech platforms. The fourth section adopts a global perspective to explain how international markets and political forces can contribute to the inability of the U.S. to issue legislation that could ameliorate harm. The fifth section

describes alternative entities that can provide guidelines, tools, education, and research in the absence of legislation. The paper concludes by summarizing insights and reflections.

The formidable challenges presented by market, political, and societal forces are schematized in Figure 1.

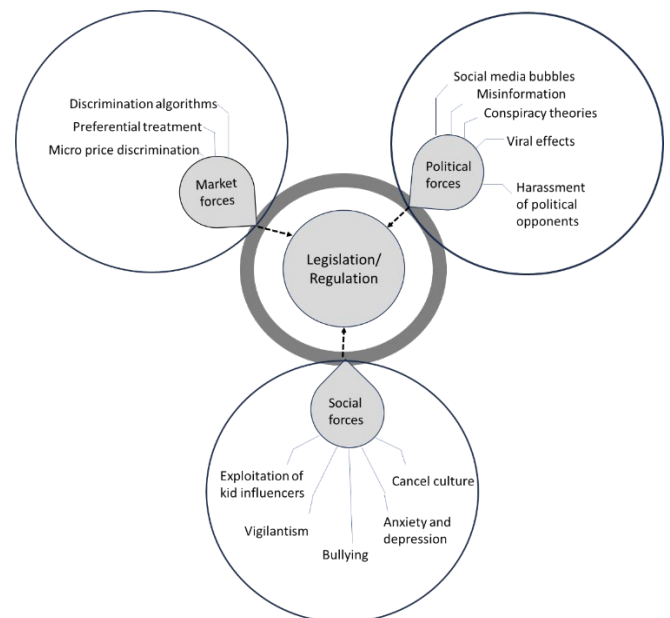


Figure 1. Forces affecting regulatory efforts.

Market Forces at Play: Regulatory Hurdles in Technological Evolution

Within the market context, technological advancements, coupled with the availability of vast amounts of data, have propelled the rapid evolution of the tech sector. In a competitive market economy, companies strive to outperform rivals by introducing cutting-edge technologies, fostering an environment that embraces an ethos of "move fast and break things" (Dukach, 2023).

Here we focus on the five dominant players – Google, Amazon, Meta

(formerly known as Facebook. Inc.), Microsoft, and Apple – which are often referred to as GAMMA (Clement, 2024). It should also be noted that these businesses are digital platforms, a type of market that mediates transactions among different participants (Gawer, 2014).

Economic Drivers of Market Dominance

In markets, several drivers lead to the establishment and persistence of dominant players. The benefit to the participants in these digital platforms lies in their ability to attract sizable groups of other participants (Armstrong, 2006). This effect, known as a *direct* or *network effect*, creates a self-reinforcing cycle that amplifies the advantages of incumbents. Strong network effects can result in a "winner-take-all" outcome (Eisenmann et al., 2006). An *indirect* or *cross-group network effect*, as Hagiu and Wright indicate, "arises if the benefit to users in at least one group (side A) depends on the number of other users in the other group (side B). An *indirect network effect* arises if there are cross-group network effects in both directions (from A to B and from B to A) and side B's participation decision depends on the number of participants on side A so that the benefit to a user on side B depends (indirectly) on the number of users on side A" (2015, p. 5). These two-sided markets reflect an interdependency and complementarity that reinforces the loop, which can result in dominance. The platform provides value for these two groups and uses pricing to generate profits. The reinforcing nature of network effects has led to the market dominance of GAMMA. The data that they can generate from users and buyers and sellers have, in turn, helped them expand their services and generate economies of scope, by which these platforms derive cost savings from producing a variety of goods or services. In other words, by diversifying their product or service offerings, companies can benefit from shared resources, such as production facilities, distribution networks, and marketing efforts, which leads to lower average costs. There is, nonetheless, no doubt that among these players there is a dynamic of innovation and competition.

In two-sided markets, the participants involved derive benefits from interacting via a shared platform (Rochet & Tirole, 2003). Within the context of GAMMA, the two sides are consumers or users of social media on one side and advertisers or sellers of products on the other. On content-type platforms like Facebook and Google, consumers not only use the services provided by these platforms, such as search engines or social networking sites, but also contribute their personal data to the platform. This includes data on the items they search for, their location, preferences indicated by past queries, and information about personal connections, such as friends on Facebook. In

this way, users act as unpaid contributors to the platform's store of data, which is crucial for the delivery and ongoing innovation of its services and for its continued dominance (Gawer, 2014). Rich user data can offer valuable insights into how to cater to customers in innovative ways or by introducing new products. These platforms can offer social media buttons, embedded video players, and other elements that insert trackers (small snippets of code) into users' web browsers (Leenes & Kosta, 2015). In a two-sided market, a company's large market share makes it more attractive to advertisers, and the data generated by a dominant player continues to support its dominance by more clearly segmenting the market.

The adverse effects of market dominance on sellers

These economic forces have led to what are known as *platform leaders* (Gawer & Cusumano, 2002) or *keystone firms* (Iansiti & Levien, 2004). The control exercised by a platform leader enables it to determine what complementary products can be offered and to create its own products to address threats from potential competitors (Furr et al., 2022). Corporate giants like Amazon, Google, Meta, and others that operate in two-sided markets can leverage their positions to favor certain companies through market strategies such as page placement or by offering preferential terms or prices for affiliated businesses or for their own products and services. Conversely, they can discriminate against smaller providers, especially if they are perceived as competitors with superior terms and prices. For instance, recent testimonies from Amazon employees reveal how the online retail platform utilizes data about independent sellers to develop rival products (Zhu & Liu, 2018).

Other examples of cases against these companies have highlighted their market dominance. In 2020 Meta faced lawsuits from several companies, including Reveal Chat, a messaging app; Lenddo, a lending service; Cir.cl, an online marketplace; Beehive, an identity verification service; and LikeBright, a matchmaking app. They claimed that Facebook was able to fend off competition by restricting app developers from integrating into Facebook's platform to offer their services (*Reveal Chat Hold Co. LLC v. Facebook Inc*, 2020), in violation of a 2007 promise to allow deep integration into the platform through a program called Graph API (Meta, 2007).

More recently, there have been lawsuits by the Justice Department and some states against Google. One such case concerns Google's ability to maintain its monopoly status through contracts with computer and mobile manufacturers like Apple to designate Google's search engine as the default

option (Nylen, 2024).

In a two-sided market, access to consumers extends beyond direct product or service sales. Market makers also control access for advertisers seeking to reach consumers. The dominance of major players enables them to dictate terms and conditions, wielding significant influence on advertising space. This is evident in the multiple lawsuits against these companies. An example is a lawsuit against Google by the EU for breaching antitrust laws by imposing restrictive clauses in contracts on third-party websites, effectively barring its rivals from placing their search advertisements on these platforms (Antitrust, 2019). Another case against Google in 2017, also by the EU, involved the company's ability to favor its own price comparison shopping service by displaying it more prominently at the top of the search results or, occasionally, in an area on the right-hand side of the search screen. The company was fined €2.42 billion (European Commission, 2017). In non-digital markets, Amazon has been a dominant player, and in 2023, the Federal Trade Commission filed a lawsuit against the company for biasing its search results to prioritize its own products over superior alternatives it was aware of. Additionally, Amazon imposes substantial fees on the hundreds of thousands of sellers who depend on the platform for their livelihood. These fees include monthly charges per item sold and advertising expenses, which have become essential for the sellers to conduct business. Collectively, these fees often amount to nearly 50% of sellers' total revenues, placing a significant financial burden on them (Federal Trade Commission, 2023).

Another practice dominant players use is bundling and linking products and services. In the digital world, Microsoft was accused of illegally bundling its Microsoft operating system with its Internet Explorer web browser (1998). Google similarly bundled its Android operating system with mobile devices (*Feitelson v. Google Inc., No. 5:14-cv-02007 (N.D. Cal. Filed May 1, 2014). 28 796 F. Supp. 2d 1137 (N.D. Cal. 2011).*, 2014). Apple faced antitrust complaints for tying iTunes to digital music rights through its iTunes store (Newman, 2012). These strategies have become common practice among dominant digital players.

Detrimental Effects of Market Power on Consumers

The wealth of individual-level data acquired by dominant market players facilitates the development of complex algorithms that benefit and provide value to users by offering high customization and convenience. Additionally, some users can enjoy the services on these platforms for free. However, the market power of these companies makes it possible for them to

depart from conventional population-based categorizations, which can result in price discrimination at the individual level. Hence, individuals may experience different terms and prices for products and services depending on their demographic and economic characteristics. In extreme cases, companies, especially in the insurance sector, can discriminate against individuals with perceived risky profiles and charge for their services at exorbitant rates. Today's technology also makes it possible for digital platforms to adjust their prices dynamically by the minute, based on competitors' prices, demand and supply, the day of the week, and the personal characteristics of the buyer (MacKay & Weinstein, 2022). Companies can employ real-time dynamic pricing because of the vast availability of information on the web and the large corpus of data about consumers. Algorithms can easily gather and analyze information to dynamically change prices depending on market conditions. With this capability, the result should be lower prices for everyone; however, algorithmic price changes can be made without collusion and result in higher prices for both sellers and consumers in two-sided markets. Furthermore, in the current transition period, some companies have been able to develop better pricing algorithms than others, enabling them to reduce prices below their slower competitors' and capture supra-competitive margins (MacKay & Weinstein, 2022). Consequently, until all companies in these digital markets can implement sophisticated pricing algorithms, consumers may experience higher prices if competitors are driven out of business. However, we are not far from having digital platforms that use dynamic pricing algorithms more broadly. Amazon, for example, offers SELLERLOGIC, which optimizes the price of an item, enabling it to be sold at the best – not necessarily the lowest – price. This goal is possible because the “repricer” is based on intelligent, algorithmic technology backed by big data (Sellerlogic, 2024). Similar capabilities can be achieved by sellers affiliated directly with Amazon (Amazon, 2024).

A 2023 FTC lawsuit against Amazon argued that consumers were being negatively affected by a diminishment of the quality of the customer experience because Amazon replaced pertinent, natural search results with paid advertisements and intentionally amplified irrelevant ads, which weakened search accuracy (Federal Trade Commission, 2023). In addition, the consumer suffers from diminished privacy protection (Wu, 2019). Today, the search results on any of the platforms of these information giants are no longer a probability ranking list of the “ten blue links” (Chen et al., 2012) but are instead a collection of information pieces (federated) that can

include images, news, videos, and maps (Wang et al., 2016), and each of these components has its own algorithms, which can be exploited to favor some companies. These federated results impact how the consumer interacts with the information provided. Graphical results are supplanting the vertical bias of listings (Chen et al., 2012) with ads controlled by the owners to benefit their platform's preferred products.

In two-sided markets, there are powerful economic strategies whereby "attention brokers" capture human attention through various means such as entertainment, news, and free services and resell this attention to advertisers for monetary gain (Wu, 2019).

Market dominance and tech evolution and their implications for regulation

In markets where there is fast technological change, even dominant players may be fearful of competitor's capabilities, which drives them to continually purchase and deploy tech tools and adopt anti-competitive practices that enable them to maintain their market advantage.

Under such market forces, large players are likely to resist regulation, and policymakers aiming to generate greater competition in these markets are challenged by a lack of legal tools to assess the impact of these dominant players. Antitrust legislation is rooted in neoclassical economics, which revolves around the principles of price theory. Antitrust regulation assumes that markets cannot exist without prices; that is, that there can be no market power at a price of zero. Antitrust law has thus not adequately addressed the zero-pricing models that have become so ubiquitous. While the Sherman and Clayton Acts may encompass issues of both consumer attention and personal data/information in antitrust decisions, they have not yet been tested (Newman, 2015). The inability to recognize the management of consumer attention and personal data as an issue when assessing mergers has allowed GAMMA players to maintain their dominance by acquiring emerging competitors, such as Google's acquisition of YouTube in 2016 (News, 2006) and of Waze in 2013 (Grey, 2013).

A factor that can limit GAMMA is local market conditions outside of the U.S. Our focus on GAMMA tends to imply that they are also dominant global players. However, local market conditions can limit their market share and force them to face more knowledgeable competitors. Their limitations in other countries can be attributed to language, traditions, habits, and regulatory differences. For example, Amazon has been unable to become a viable competitor to Alibaba in China. Domestic and dominant players like

the Alibaba Group (including Tmall and Taobao) and JD.com outpaced Amazon, which, given its resources, could have been a formidable competitor. Moreover, Amazon's approach in China also faltered due to its lack of consideration for local factors, including preferences among Chinese consumers for idiosyncratic online shopping, payment methods, and delivery systems (Tungul & Hadavi, 2023). In emerging economies where cash is still predominant, the companies that have been able to adapt to consumer preferences are leading over the global platforms. For example, in Indonesia, Malaysia, the Philippines, Thailand, and Vietnam, the successful Lazada Group, purchased by Alibaba, implemented a cash-on-delivery system (Bourlier & Gomez, 2016).

Nimble emerging competitors can limit the dominance of these players. If a company is locked into a specific business model, it may make itself vulnerable to entrants that can capitalize on other features desired by consumers. For example, eBay lost to the more-focused Etsy, and computer-limited Facebook lost to Instagram. However, Meta eventually acquired some of these successful platforms (e.g., Instagram) or imitated them (e.g., Instagram copied many Snapchat features) (Furr et al., 2022).

The large GAMMA companies are digital ecosystems with many components that work collectively to continue to benefit their participants. These ecosystems encompass various interdependencies, which are often informal yet essential for generating user value. These collaborations allow the dominant players to develop a larger set of capabilities that can open more profitable opportunities (Furr et al., 2022). In the financial context, for example, application programming interfaces (APIs) offer secure connections between databases and functions. They facilitate fintech firms' connectivity with larger financial institutions, enabling data sharing and collaborative innovation (Ozcan & Zachariadis, 2021).

Because of the close connections among all their ecosystem participants, these dominant platforms can provide a superior integration of complementary components that confers advantages over new entrants. A prime illustration is Apple's coordination of an ecosystem comprising complementary components—such as physical MP3 players, music management software, and a music acquisition venue—which was made feasible by the digitization of music, which in turn led to the disaggregation of albums into individual songs (Furr et al., 2022).

In a dominant platform ecosystem, an additional factor that can limit market power is interfirm conflict, where the market controller can impede

the inclusion of new providers, resulting in a delayed and subpar adoption of emerging media technologies (Furr et al., 2022). This type of conflict can result in a company limiting access or creating a similar and potentially better alternative to the one provided by the platform (Zhu & Liu, 2018), which can capture the attention of regulators, as was the case with the Epic Games's suit against Apple over the latter's App Store policies (Coffield, 2022).

Table 1 summarizes the factors that will continue to foster the dominance of these players, as well as the potential counterforces that may limit it. At present, there are more forces suggesting their continued dominance.

Table 1: Driving and counter forces of digital platforms

DRIVING FORCES	COUNTER FORCES
Network effects	Local (geography) factors Insufficient demand heterogeneity
Cross-side (indirect) network effects	
Two-sided markets	Competition
Economies of scope	Interfirm conflict
Data from users	
Marketplace control	
Larger sets of capabilities	
Superior integration	

Evaluating the effectiveness of regulation on major tech Platforms

When trying to determine how to regulate these dominant platforms, policymakers are significantly challenged by the complexity of the ecosystems, as they do not fully understand the many players and interactions that have evolved (Jacobides et al., 2020).

In Europe, regulators are attempting to eliminate unfair market practices, encourage competition, and foster the European tech market. A recent study about these dominant players finds that even in the presence of regulation, their dominance is likely to continue. Facebook (Meta) and Google generate revenue through advertisements and can collect highly detailed data from the users of their widely utilized free services, enabling them to provide unparalleled advertising solutions (Jacobides et al., 2020).

The lawsuits described in this paper indicate that these platforms will be prevented from favoring their own offerings or discriminating against competitors. In Google's case, the restrictions will block it from becoming Apple's default search engine and prevent it from positioning its own services, like Google Maps, as top search results. However, because of its powerful

search engine, it will continue to attract a massive volume of online traffic that will preserve its dominance with advertisers.

The European Union has issued several regulations governing privacy – such as the General Data Protection Regulation (GDPR) (European Parliament, Council of the European Union, 2016) –online tracking, and the use of cookies, which are outlined in both the Data Protection Directive (European Parliament, 1995) and the ePrivacy Directive (European Parliament, Council of the European Union, 2009). The ePrivacy Directive, amended in 2009, introduced new stipulations regarding the installation of cookies and access to them. Specifically, the Data Protection Directive establishes fundamental guiding principles for the protection and processing of personal data. It sets explicit requirements for the lawful use of cookies, requiring adequate subscriber notification and consent before installation and use. Although this regulation technically applies only to European users, because digital markets have no boundaries, companies have adopted it outside of Europe as well.

Within the context of privacy policies and legislation, the GDPR is shaped by the principles of notification and choice. The initial chapter of the GDPR mandates that consent must be obtained before a website can collect and process personal data (European Parliament, Council of the European Union, 2016, p. S. 6). Technically, these regulations prevent GAMMA from collecting a lot of personal data from their users; however, recent studies suggest that users are annoyed by the dialog window (Kulyk et al., 2018), and some accept the cookies without reading the consent options (Hofstad & Lundqvist, 2021).

In the Netherlands, where the government implemented one of the most stringent versions of the GDPR regarding the installation of cookies, forcing companies to install intrusive banners, pop-up screens, "cookie walls," and prominent information overlays that obscure or dim the underlying content, there was a backlash. The regulation faced opposition not only from the advertising industry, but also from web publishers and even everyday internet users (Leenes & Kosta, 2015).

It is not clear whether regulation will have the intended effect of generating competition, even if anti-competitive practices are reduced or eliminated. Research from Jacobides et al. (2020) suggests that the dominant players have such large audiences that even if some users reject cookies and opt for stricter privacy settings that prevent companies from collecting personal data, there are still enough users who will not object. This allows

these companies to continue providing better-targeted advertising than that of any emerging competitors. Even with these restrictions, Google's dominance will enable it to continue to offer unparalleled search-engine capabilities, unless the introduction of AI leads to a different type of search interaction that upends the well-known search model. In addition, under regulations that curtail data collection and prevent data sharing, the small players are more likely to be disadvantaged, as they have a smaller user base than the dominant players and generate less ad revenue (Jacobides et al., 2020).

An additional argument that these companies have made is that these restrictions can negatively impact consumers and partners. Potentially, restrictions regarding data collection and how companies can interact with potential partners could hinder innovations that would benefit all involved.

Political Power Plays: Harms, Challenges, and the Political Barriers to Regulation

Originally conceived as a tool for facilitating global communication, the Internet has evolved into an indispensable technology, one that shapes our political views. The advent of technologies such as social media, digital forums, and video sharing has contributed to the fragmentation of society into ideological bubbles (Barrett, 2024). Unfortunately, algorithms designed to maintain user engagement often contribute to the entrenchment of extreme views, exacerbating societal polarization.

Political speech, unlike commercial speech, has the highest degree of protection and is embodied in many countries' constitutions and in international treaties (Gregorio & Goanta, 2022). The challenge for policymakers, however, is that it is not easy to distinguish a political ad, which should include a disclosure statement, from a personal posting (Swart et al., 2020). Some individuals use political speech for personal benefit. An example is a U.K. member of parliament who, in 2007, posted a tweet that was later deleted: "Delighted to see Parliament stocking @Radnorhills water! A brilliant firm in my constituency—employing over 200 people and putting sustainability right at the heart of their business. #RadnorHills." It was later revealed that in early January, the parliamentarian had received a £10,000 donation from the water company referred to in her photo (Gregorio & Goanta, 2022, p. 204). In the U.S., a similar incident happened when White House adviser Kellyanne Conway encouraged Fox News viewers to purchase items from Ivanka Trump's clothing line, a private company (Voorhees, 2017). One could argue that these are extreme cases of political players using their public

platform to obtain monetary benefits from the private sector.

Much more damaging is the blurring of the line between commercial and political speech that happens when politicians pay influencers to develop content that favors them. Known as *influencer marketing*, it is used by content creators to interact with thousands of followers through content of all sorts (Lorenz, 2020b). *Influencers* or *content creators* are individuals who develop content to attract a large number of followers and then seek to monetize their efforts (Newlands & Fieseler, 2020). This type of speech has generally been studied within the context of advertising, where some influencers are paid or offered goods or services by companies in exchange for being showcased, reviewed, or endorsed on their channel. There are many ways in which a person can generate income through social media. They can receive revenue from brands (influencer marketing), from platforms (ad revenue, channel subscriptions, tokens, crowdfunding), from peers (web monetization), or from direct selling of their products (Gregorio & Goanta, 2022). This array of possibilities attracts mini-entrepreneurs (Newlands & Fieseler, 2020), whose outlets have become a new complex manifestation of the gig economy, where any Internet user can monetize their online presence by sharing multimedia content; in other words, it has become possible for users to involve themselves in advertising, such that influencers have become another mode of advertisement (Goanta, 2021). This is happening at a time when policymakers lack the tools to prevent serious violations of both commercial and political speech. For example, in 2020, several influencers were paid \$150 to create favorable memes for Michael Bloomberg, to increase his appeal among younger voters (Lorenz, 2020a). These platforms benefit talented freelancers who can generate income and manipulate content to attract more users and, thus, more income; however, it is difficult to distinguish between what they believe and what they are paid to claim to believe.

Newspapers abide by journalistic norms that were implemented as a reaction against the widespread propaganda during World War I and, later, against corporate public relations (Lazer et al., 2018). Large print and broadcasting news outlets maintained this standard until the Internet began to erode barriers to entry and allowed average individuals to publish content without abiding by those journalistic norms. As a result, the trust and credibility that the public had for traditional news outlets have been severely undermined. According to a Gallup poll, only 32% of people reported having "a great deal" or "a fair amount" of trust in mass media. Among Republicans,

trust in mass media has plummeted to just 14%, down from 32% (Gallup Inc., 2016).

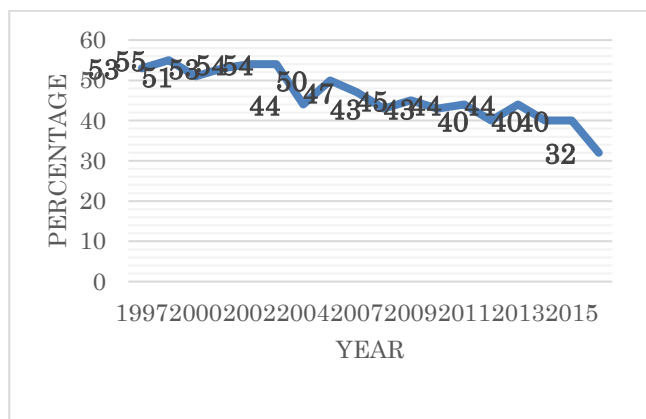


Figure 2. Declining trust in mass media. (Source: Gallup Inc., 2016)

In addition, the decline of traditional media outlets, particularly in smaller cities and towns, has further intensified the problem of questionable information (Lipka & Shearer, 2023). Once the Internet became more widespread, the advertising revenue that once supported these smaller newspapers declined, and with so much free content available to them, people were unwilling to pay for subscriptions (Graham & Smart, 2010).

Hyper-partisan talk radio and cable TV prior to the Internet and later divisiveness associated with the Trump administration (Barrett, 2024) in U.S. society have all contributed to *affective polarization*, the tendency to dislike and distrust those from the other political party (Druckman et al., 2021; Duca & Saving, 2017; Martin & Yurukoglu, 2017), and social media, while it may not be the cause of partisan divisiveness, exacerbates it (Barrett, 2024; Bavel et al., 2021; Finkel et al., 2020).

Polarization, in part fueled by political elites from the different parties (Druckman et al., 2021), has resulted in partisanship as a type of social identity by which “individuals divide the world into two groups: their liked in-group (our own party) and a disliked out-group (the other party)” (Druckman et al., 2021, p. 28), and out-party animosity has increased substantially.

Without reliable and trustworthy gatekeepers, communities are exposed to vast amounts of information and misinformation. The rise of “fake” news is fueled by political and monetary incentives, with individuals gaining fame and revenue based on the incendiary nature of their content, even if it is entirely false.

The emergence of deepfakes compounds the challenge of misinformation. With the ability to superimpose images and mimic voices

seamlessly, political actors can create false statements attributable to their opponents. This form of misinformation, coupled with conspiracy theories, can lead to individuals’ being targeted unfairly through virtual and physical harassment. Research from Dobber et al. (2021) suggests that microtargeting techniques can amplify the impact of deepfakes by enabling malicious or profit-making political actors to tailor deepfakes that exploit their audience’s susceptibilities.

Speech is fundamental to democracy; it is the primary mechanism that citizens have to engage with one another, to learn about candidates’ policies and stances on issues, and, in short, to foster democratic values. Democracy can nonetheless be significantly impaired if information is misleading or outright false. Extreme partisan alienation also erodes trust in elections and threatens the foundations of democracy. The negative effects of these factors on democracy are manifested in the form of partisan gridlock and paralysis, erratic governance and instability, and democratic erosion (Sommer & McCoy, 2019).

In this environment, the U.S. political system faces significant challenges. The potential for sporadic acts of violence against individuals or entire groups, driven by misinformation, poses a threat to democratic processes, public trust in institutions, and overall governance. The January 6, 2021, attack on the Capitol is a painful example of how polarization can fuel political violence and how it has become a threat to American democracy that can resurface in the future (Barrett, 2024). If left unregulated, these problems could have profound and lasting consequences.

The Challenge of Controlling False Political Speech

Efforts to regulate the negative effects of technological advancements face significant challenges rooted in the political system. Two key factors determine the success of regulatory initiatives: the structural aspects of the system and the individuals occupying key political positions. The structural components encompass the election process, legislative and regulatory procedures, and the broader decision-making framework. From a structural perspective, ideological divides, differing views on regulatory needs, and the speed of technological progress present formidable barriers to successfully introducing legislation and regulation to mitigate the harms caused by digital technologies.

Ironically, there have been expressions of sentiment in the U.S. favoring the regulation of big tech. Specifically, both scholars and politicians from various perspectives are suggesting measures such as doing away with

immunity from liability, mandating specific actions, and prohibiting the takeover of companies, and are even advocating for the complete breakup of the tech giants (Board, 2020; Drozdiak, 2020; Mims, 2020).

At the level of individuals, politicians, as representatives of the public, hold positions of power that attract individuals with a natural inclination to maintain that power. Strategies involving fear, extreme positions, and provocative statements have been historically successful at securing reelection due to people's negativity bias—a tendency to focus more on, and assign greater significance to, negative and threatening stimuli as opposed to positive and rewarding stimuli (Johnston & Madson, 2022) – or due to the emotional effect these strategies have on them (Guadagno et al., 2013). Digital technologies, especially social media, have also amplified these strategies, enabling representatives to disseminate provocative messages widely and motivate individuals with diverse political tendencies. Since the successful use of social media by President Obama's election campaign, these platforms have gained popularity among political representatives. Sites and apps like Facebook and X (formerly Twitter) bypass traditional media gatekeepers and provide direct access to potential supporters (Larsson & Kalsnes, 2014).

Beyond these effects of traditional and social media, the fundraising structure of the political system in the U.S. also contributes to polarization. Increased individual contributions have been found to lead to the election of more polarized legislators (Barber, 2016).

Another significant obstacle is disagreement among policymakers and other stakeholders on the nature of the harm posed by digital technologies. In the U.S., some parties argue that regulating social media companies will censor and curtail speech (Electronic Frontier Foundation, NA) or could lead to aggressive content removal to avoid liability (Bambauer, 2020), or they argue that these companies should not be monitored at all for fear of being [considered editors] (Funk, 2023). From an economic perspective, regulation could impose burdens on new services and hinder competition in the marketplace (Cameron, 2021).

In sum, challenges within the political system, widespread ideological divides, differing views on regulatory needs, and the speed of technological progress present formidable barriers to the successful introduction of legislation and regulation aimed at mitigating the harms caused by digital technologies. Without a unified approach and a nuanced understanding of these challenges, the U.S. political system is unlikely to be able to effectively

address the complex problems arising from the digital transformation of our society.

Societal Harms Arising from Digital Interactions

Our interactions through digital devices have exposed us to a range of negative effects; this is especially evident in the use of social media. Using the apps on our mobile devices has embroiled us in mental health problems (Berryman et al., 2018; Braghieri et al., 2022; O'Reilly et al., 2018), vigilantism (Sweeny, 2023; Trottier, 2020), instances of cancel culture (Bouvier, 2020), and self-censoring (Burnett et al., 2022). Regarding mental health, studies indicate a rise in anxiety and depression, with a more pronounced impact on female teens (Perkovich, 2021). Unlike the physical world, where individuals can often distance themselves from harassment, the digital realm allows bullying to persist, leading to more severe mental health problems and, tragically, instances of suicide.

Equipped with digital devices capable of recording audio and video, some members of society have taken matters into their own hands to engage in vigilantism. An early example is the well-known case of the "dog poop girl" in Korea, where photos of a woman neglecting to clean up after her dog led to aggressive public harassment (Lyu, 2012). The desire to punish others for speech regarded as offensive has led to a similar shaming phenomenon known as "cancel culture." This trend, fueled by the reinforcement of pre-existing beliefs, involves efforts to silence dissenting viewpoints. However, despite these challenges, free speech in the United States is expected to persist, but this could lead to more extreme cases.

Regulatory challenges: Influencers, free speech, and corporate accountability

Society favors market convenience and the promise of additional income through social media activity, leading to a proliferation of influencers. Consumers have prioritized ease of access to various services over concerns about safety and potential abuses related to data collection, cybersecurity threats, advertising, and profiling. Human nature, driven by a desire for convenience, tends to minimize the perceived need for regulation among consumers.

Concerning harms related to free speech, polarization is widespread, with individuals exclusively engaging within their communities, politically and otherwise.

However, a notable force that could prompt regulatory action is the visibility of harm in the media—the exposure of scandals arising from

corporate practices or widely publicized social media-related harms. High-profile cases can become catalysts for public and legislative attention, potentially leading to the introduction of regulations to address pertinent issues. An example in the U.S. was the action taken by companies like Meta, Google, and Amazon after the January 6th insurrection attempt. After that event, in response to false accusations of rigged elections, certain posts were tagged as unreliable or false, and some videos were removed (Bremmer, 2021). Twitter and Facebook banned President Trump from using their platforms, citing violations of their terms of service regarding the promotion of violence and criminal acts. Similarly, Apple and Google removed the app for the alternative social media platform Parler from their online stores, and Amazon ceased hosting the service for the same reason (Cusumano et al., 2021). High-profile cases like these prompt governments to consider regulating companies or allowing them to opt for self-regulation to address the concerns of policymakers. Normally, companies do not like regulation when they believe that their profits will be negatively affected, but in the case of social media, a company's bad behavior may undermine users' trust, which can also negatively impact them. This became obvious to Elon Musk when, after eliminating many of the safeguards that Twitter had implemented, the platform began to experience the creation of a series of fake accounts as a result of blue-tick verification being introduced, and content moderation continues to be a problem (Disinformation team, BBC Monitoring, 2023; Miller et al., 2023; Wendling, 2023).

The Global Impact: Cultural and Political Variances in Regulation

The emergence of digital communication has posed tremendous challenges to our ability to regulate its trade and distribution. Global communication networks and cloud services enable data originating in one country to be stored, processed, and analyzed in another. This essentially involves data exchange among individuals, companies, and nations. However, there is currently no universal or even plurilateral system of rules to govern these cross-border data flows. Many believe the WTO is the appropriate agency for regulating such flows. However, members of the WTO have yet to directly address what constitutes legitimate regulation of cross-border data flows, including issues such as data protection and censorship regulations (Aaronson, 2017). Unfortunately, the WTO has failed to adapt to the rapidly changing data-driven economy (Burri, 2017).

In a globalized world, companies can operate and provide services,

and data can travel anywhere. Companies can effectively "forum shop" for the rules and regulations that most favor their economic interests. It is not surprising that Sam Bankman-Fried moved the headquarters for FTX first to Hong Kong and then to the Bahamas, where the regulatory environment was more favorable (Yaffe-Bellany & DelMundo, 2023).

Another factor that affects the regulation of information flows is differences among political regimes, which Reich defines as "patterns of rules, norms, and decision-making procedures among state officials and between state officials and society" (2002, p. 2). There are several characteristics that situate a country on a continuum of democratization that runs from democratic to authoritarian, for instance, whether the executive and the legislature are freely elected, whether policymakers have term limits, the percentage of the population that has voted, and other historical attributes (Reich, 2002). Given their differing political structures, countries also have different goals and different approaches to regulation. In some countries, for example, like the North American countries and the EU, governments have intervened by developing policies governing competition, whereas others have successfully privatized state-owned enterprises. However, regulation may lag or not even be desirable if there is a belief that private corporations are contributing to a country's economic development (Cook et al., 2004). In the scholarly tradition of the Chicago school of economics, regulation is often seen as a barrier to entry into markets (Peltzman, 1976; Posner, 1974, p. 197; Stigler, 1971). Independent of the ideological bent, different economic circumstances affect how a government decides how to approach competition. In some countries, regulators adopt an antitrust approach; in others, a market structure is favored. This preference is not always due to a belief in the market approach but rather to the fact that their institutions and the capacity and skills to implement policy are underdeveloped, which is typically the case in lower-income countries (Cook et al., 2004). Moreover, there may be situations where a government experiences regulatory capture by large and powerful domestic companies. However, the capture may also be by the government itself (Cook et al., 2004). Given these differences in economic ideologies and capacity, some countries may have a more favorable climate for businesses because of lax regulation designed to attract foreign capital or simply because they lack the infrastructure to establish or enforce rules governing competition. With the availability of such diverse regulatory regimes, digital giants can move their operations to places that allow them to do business with few restrictions.

The advent of artificial intelligence (AI) has heightened the significance of legislative and regulatory approaches globally. Certain governments, such as China and countries in the Arab peninsula, aspire to position themselves as leaders in AI and are shaping their regulatory landscapes accordingly. China, which at some point lagged behind the Western economies in AI development, has caught up, and this technology is being implemented everywhere in the country, including in the government, which aims to use it to revolutionize the Chinese economy (Lee, 2018). China has unparalleled access to data, and entrepreneurs there face strong competition from individuals willing to copy intellectual property and engage in anti-competitive practices. This has led to the creation of some questionable companies but has also resulted in new firms that are leading the country in implementing this technology (Lee, 2018).

In contrast, the European Union has proactively implemented regulations in response to the potential risks associated with AI. In 2024, the European Parliament adopted the Artificial Intelligence Act (AI Act), the world's first comprehensive legal framework for AI. This act establishes EU-wide rules for data quality, transparency, human oversight, and accountability. It imposes requirements, substantial extraterritorial effects, and fines of up to €35 million or 7% of global annual revenue (whichever is higher). The AI Act will require adjustment and expense by companies operating in the European Union (Nahra et al., 2024).

These global differences can adversely affect markets, possibly prompting companies to relocate operations to countries with more lenient regulations to maintain their competitive edge. Some national governments, driven by techno-regulatory opportunism, may adopt a limited regulatory approach to avoid being left behind in the race to leverage digital technologies, especially AI. It is nonetheless clear that some governments in industrialized nations are recognizing that the lack of global coordination and agreement around AI can result in potentially catastrophic consequences for humanity. Evidence of a desire to find a global solution can be found in an international summit where South Korean President Yoon Suk Yeol, British Prime Minister Rishi Sunak, and other world leaders joined industry representatives from major AI players and committed themselves to establishing thresholds for severe AI risks, such as applying it to the development of biological and chemical weapons. They also pledged to collaborate on AI safety testing and evaluation guidelines, emphasizing the importance of innovation and inclusivity (UK government, 2024). The results

of these efforts have yet to be determined, and global pressures to lead in the AI race may undermine these initiatives.

A Layered Framework for Protecting Stakeholders in Dominant Digital Platforms: Alternatives to National or Global Regulatory Regimes

Economic, political, and social forces will make it difficult for national governments, much less international bodies, to agree on an enforceable set of laws and regulations that could limit negative consequences from these large companies and the information services they provide. Differences in market perspectives, disagreements about free speech, and the financial incentives that some of these platforms offer to micro-entrepreneurs, whether in positive ways or negative ones (such as influencers' making money through propaganda), will impede progress towards any regulatory regime.

An additional challenge to any formal regulation is the dynamic nature of the technology field. Just ten years ago, AI was mostly considered to be in the realm of science fiction. Today, only two years after the introduction of ChatGPT, it is gradually pervading every aspect of our lives. Due to the time it takes to write, debate, and pass laws, the lag between policy changes and technological development makes it difficult to anticipate the impact of innovations. As a result, policy will always lag behind technology.

Given these challenges, we need to consider alternatives that can protect small businesses, consumers, and the users of these dominant platforms. Any proposed solutions will have varying levels of effectiveness due to differences in the resources, enforcement capabilities, compliance levels, and influences of the entities involved. The solutions can be thought of in terms of layers of effectiveness that start with weaker measures, such as education at the K-12 level and the research conducted in higher educational institutions. They also include industry standards, government regulations, and measures taken by professional associations, such as medical associations, which may establish codes of ethics relating to the use of technology. Government regulations are the most effective layer and demand the highest compliance; they can either prevent or allow certain activities of these tech platforms. Figure 2 illustrates the key factors that determine how effective various stakeholders are in mitigating the potential negative impacts of big tech. The stronger stakeholder constituencies comprise those with extensive influence, significant resources, high engagement, and wide and deep networks, and any that command high compliance. Examples include large industry standards organizations (e.g., ISO, IEEE), well-funded

consortia (e.g., Partnership on AI), and major tech companies (e.g., Google, Microsoft).

The weaker stakeholder constituencies comprise those with limited resources, engagement networks, and influence, and any that require less compliance. These could be smaller or newer organizations, underfunded research groups, or entities with a less-established presence in the AI regulatory landscape.

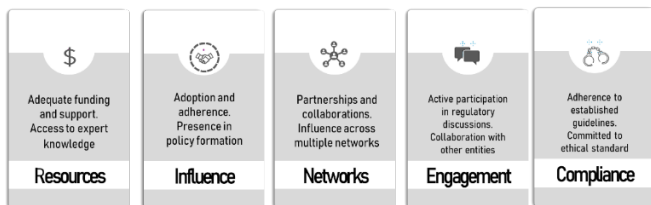


Figure 3. Constituency strengths.

The concentric hexagons depicted in Figure 4 indicate the various types of stakeholders based on the strength of their constituencies, ranging from weaker to stronger. It is important to acknowledge that despite limitations in resources or influence among these stakeholders, effective safeguards against the detrimental impacts of digital platforms will require the involvement of all of these entities.

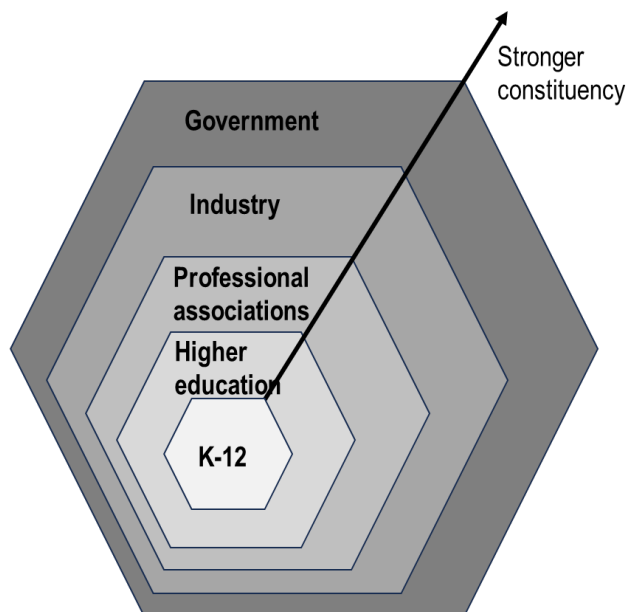


Figure 3. Layered constituencies of stakeholders capable of regulating technology platform power.

K-12 education is perhaps the weakest of the constituencies. Nonetheless, it can play an important role in making young minds aware of the potential dangers of using digital platforms. While in some school districts the use of social media in K-12 has been banned (Blazer, 2012), it has also been recognized that this may not be the best approach to shield

students from inappropriate digital content, unsolicited adult interactions, and peer harassment; there is also a recognition that social media can have a pedagogical use in and of itself. Furthermore, it will be difficult to ban these platforms, given their wide use and popularity (Anderson et al., 2023). Courses and lectures about benefits and threats may not be the best way to communicate the negative effects of digital media among teens; instead, it might be more effective to have students develop content and learning on their own (Casa-Todd et al., 2020). Some school districts have also developed materials to help parents understand the risks of these technologies and provide suggestions to keep kids safe (NYC Public Schools, 2024).

Higher education and civil society. Research undertaken in these institutions can lead to the development of tools and recommendations that can help users effectively address some of the challenges posed by new technologies. To illustrate the power of these academic contributions, for instance, researchers have developed tools to help crowdsource workers on Amazon Mechanical Turk identify the most profitable tasks and avoid the exploitation that often takes place on the platform (Savage et al., 2020). There are also a number of organizations emerging in civil society that are joining forces to address challenges associated with the wide deployment of technology. Examples are the American Civil Liberties Union (ACLU); the AI Policy Exchange, a global coalition of individuals and institutions focusing on the convergence of AI and public policy; the Partnership for Public Service, a non-profit organization that, among other things, monitors and proposes technological solutions to improve the role of government (Partnership for Public Service, 2024); and the Center for AI and Digital Policy, an independent non-profit research organization that evaluates national AI policies and practices, provides training, and advocates for democratic principles for AI (CAIDP, 2023). At the International level, we have organizations such as Amnesty Tech, a branch of Amnesty International that advocates for the regulation of big tech to safeguard human rights and foster greater transparency and accountability (Amnesty Tech, 2024) and the AI Policy Exchange, an international, independent non-profit entity of the AI Policy Exchange Secretariat in New Delhi, which produces research to foster AI literacy and inform policy making (AI Policy Exchange, 2023).

Professional associations also have a role to play in developing mechanisms that prevent harm. To protect children and teens, the American Psychological Association has developed content to teach parents about the damaging effects of digital platforms and has designed strategies for parents

to discuss the use of digital apps with their sons and daughters (*Keeping Teens Safe on Social Media*, 2023). Similarly, the Association of Computing Machinery’s code of ethics states that the code is designed “to inspire and guide the ethical conduct of all computing professionals, including current and aspiring practitioners, instructors, students, influencers, and anyone who uses computing technology in an impactful way” (ACM, 2018). The IEEE Computer Society has a similar ethics code, and the International Society for Technology in Education (ISTE) has developed standards that provide educators with a framework for leveraging technology to cultivate impactful, sustainable, scalable, and equitable learning opportunities.

Industry standards. The most widely used industry standards for the tech sector originate with the International Organization for Standardization, an international network of national standards bodies in 171 different countries that brings experts together to develop international standards. Two examples aimed at protecting people from some of the potential harms of technology are standard ISO/IEC 27001, which focuses on information security management systems to help organizations protect information assets, and ISO/IEC 29100, which establishes guidelines for managing privacy risks within organizations. Another international organization is the Institute of Electrical and Electronics Engineers (IEEE); its IEEE P7000 series addresses various ethical considerations in the design and development of autonomous and intelligent systems. In the U.S., the National Institute of Standards and Technology developed the NIST Cybersecurity Framework, which provides organizations with guidelines for managing and mitigating cybersecurity risks.

Government Regulation. While we argue in this paper that regulating these platforms will be difficult, this has not impeded efforts to provide some guidelines that can help minimize abuses caused by the deployment of increasingly sophisticated algorithms. An example is the U.S. White House Blue Print for an AI Bill of Rights (The White House, 2022), which stipulates the following: (1) the right to safe and effective systems that prioritize safety and effectiveness, whose development involves diverse stakeholders and incorporates testing and ongoing monitoring, with transparent reporting and risk and mitigation efforts to protect against harm; (2) the right to algorithmic discrimination protections, where systems are designed to prevent algorithmic discrimination and ensure protection by utilizing representative data and testing for disparities; (3) the right to data privacy, which allows people to control how their data is used and includes

protection from abusive data practices and privacy violations through default safeguards, meaningful consent, and oversight, especially in sensitive domains; (4) the right to notices and explanations that inform citizens when an automated system is used and that help them understand how its outcomes can affect them; and (5) the right to human alternatives, which allows citizens to opt out of an automated system in favor of a human alternative and have access to timely human assistance to address and remedy any issues they face.

The European Union is the only region to date where policymakers have enacted regulations to protect citizens. The Digital Services Act (Single Market For Digital Services and Amending Directive 2000/31/EC (Digital Services Act), 2022) is an all-encompassing legislative measure aimed at addressing all the issues presented in this paper. Table 2 summarizes the objectives of the Act.

Table 2. Digital Services Act protections

For citizens	For providers of digital services
<ul style="list-style-type: none"> • better protection of fundamental rights • more control and choice • stronger protections for children online • less exposure to illegal content 	<ul style="list-style-type: none"> • legal certainty • a single set of rules across the EU • an easier path to starting up and scaling up in Europe
For business users of digital services	For society at large
<ul style="list-style-type: none"> • access to EU-wide markets through platforms • a level playing-field against providers of illegal content 	<ul style="list-style-type: none"> • greater democratic control of and oversight over systemic platforms • mitigation of systemic risks, such as manipulation or disinformation

(Source: European Commission, n.d.)

Conclusion

This paper describes the economic forces that led to the creation of the dominant digital platforms, namely, GAMMA. In it we discuss the challenges of regulating big tech, considering the economic, social, and political factors involved.

In the economic sphere, the reinforcing effects of networks and big

data give GAMMA an advantage over new entrants and smaller players. By collecting and analyzing vast amounts of information, GAMMA can generate insights about consumers and innovate more easily. However, these large players can abuse their power, as evidenced by the numerous lawsuits they have faced. Yet, while these lawsuits have resulted in some restrictions, these giant players still have a great advantage due to their sheer size.

In the political arena, the structure of the political system, the power of social media to generate attention, and the blurry line between political and commercial speech make it difficult to regulate social media content, even as this type of speech polarizes U.S. society. While social media connects people, it also can cause great harm, particularly to children and teens. Nevertheless, because these platforms also serve as a source of income for single creative entrepreneurs, regulating them to curtail harassment, bullying, or vigilantism will be difficult.

At the global level, we find that efforts to become a leader in tech can motivate a government to limit regulation in order to attract and develop technologies that benefit their economies. Hence, the large players can forum-shop and avoid regulation altogether.

Because there are numerous factors that hinder the regulation of these dominant players, societies will need to employ alternative methods to minimize their negative impacts on society. Education at all levels can make children and teens aware of the dangers of using these technologies and, ideally, provide them and their parents with information and tools to make them more knowledgeable and cautious users. Professional associations can establish member guidelines and international industry standards, which could lead to these players' regulating themselves in the effort to avoid scandals. Each of these stakeholders on their own will not have all the resources, enforcement, or influence to significantly change the behavior of these companies, but together, they could achieve stronger influence; minimize negative anti-competitive, discriminatory behaviors in market settings; and avoid harm to society in social settings.

We recognize that regulation will be difficult and may never be able to keep up with technological advances. However, we are optimistic that non-government stakeholders will develop information, tools, and guidelines that can limit the harm done by these dominant platforms.

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