

DIGITAL PLATFORM SAFETY AND THE PROBLEM OF VARIABLE COSTS

Margaret O'Grady*

Fiona Scott Morton**

Cite as: Margaret O'Grady & Fiona Scott Morton, *Digital Platform Safety and The Problem of Variable Costs*, 31 RICH. J.L. & TECH. 195 (2025).

* Assistant Professor of Law, University of New Hampshire, Franklin Pierce School of Law; Fellow, Thurman Arnold Project, Yale University.

** Theodore Nierenberg Professor of Economics at the Yale School of Management, Director of the Thurman Arnold Project, Yale University.

ABSTRACT

Because the United States has no digital regulator to set minimum quality or safety standards for digital products, dominant platforms have both the ability and permission to harm consumers, a trend which will accelerate. Digital platforms with market power have no incentive to shoulder the expense of providing safe, high-quality services, because the marginal costs of providing increased quality and safety—often human beings engaged in content moderation or fact-checking—are so high. If providing better quality would increase profits, digital platforms would have done so already. Instead, digital platforms act like automobile manufacturers before regulators required seatbelts: they will insist that people would rather ride in unsafe cars than shoulder the extra expense of a seatbelt. This argument is especially difficult to deal with in the case of digital markets, because many consumers do not realize that these services are not free; they are paying for them with their attention, their data, their mental health, and their democracy. Recent actions by the CEOs of Meta and X have demonstrated the propensity of social media sites to increase their profit by ending investments in safety, regardless of the risks to users, and in violation of the laws of other nations. It is past time for United States lawmakers to hold digital businesses to the same standards as other sectors such as food, automobiles, and pharmaceuticals and require their products to be safe.

Table of Contents

I.	INTRODUCTION	198
II.	Gatekeepers do not Offer Efficient Quality Levels Because They are Monopolies.....	203
A.	Digital Quality is Difficult for Consumers to Assess	206
B.	The Digital Platform Business Model Enables Degraded Quality ...	208
III.	LACK OF INVESTMENT IN QUALITY DEGRADES PRODUCT SAFETY	210
IV.	GATEKEEPERS' RESISTANCE TO REGULATION IS PART OF THEIR BUSINESS MODEL	217
A.	Quality and Safety are Costly.....	220
B.	The EU has Implemented Regulations to Address some of These Ills	226
V.	CONCLUSION.....	230

II. INTRODUCTION

[1] Since the 2024 presidential election, CEOs of digital platforms seeking favor with the new administration flew to Mar-a-Lago to meet with President Trump,¹ gave money to the Trump “inaugural fund,”² appointed personal friends to top corporate positions,³ appeared behind the President at inaugural events,⁴ and announced that they would stop using third-party

¹ Mike Isaac et al., *Mark Zuckerberg Meets with Trump at Mar-a-Lago*, N.Y. TIMES (Nov. 27, 2024), <https://www.nytimes.com/2024/11/27/us/politics/mark-zuckerberg-trump-meeting.html> [perma.cc/UZ4G-XXF7]; Tim Reid, *Trump Says Microsoft's Bill Gates Has Asked to Visit Him in Florida*, REUTERS, <https://www.reuters.com/world/us/trump-says-microsofts-bill-gates-has-asked-visit-him-florida-2024-12-27/> [perma.cc/G2CY-Z855] (Dec. 27, 2024, 10:43 AM); Mike Wendling, *Musk Joins Bezos and Trump Dinner at Mar-a-Lago*, BBC NEWS (Dec. 19, 2024), <https://www.bbc.com/news/articles/c5ygvjpxn17o> [perma.cc/483A-V6TK].

² Miranda Nazzaro, *Why Big Tech Is Funding Trump's Inauguration*, HILL (Dec. 22, 2024, 5:23 PM), <https://thehill.com/policy/technology/5047266-trump-inaugural-fund-tech-donations/> [perma.cc/4QWD-6DXL] (stating Amazon and Meta each gave one million dollars to the fund).

³ Alex Gangitano, *Trump Says Meta Has 'Come a Long Way' After It Ends Fact-Checking Program*, HILL (Jan. 7, 2025, 1:16 PM), <https://thehill.com/homenews/administration/5071812-trump-praises-meta/> [perma.cc/U5TN-FNN6] (reporting that Ultimate Fighting Championship CEO and President Dana White will be joining Meta's board of directors).

⁴ Mary Whitfill Roeloffs, *Billionaires Worth a Combined \$1.35 Trillion Attend Trump's Inauguration: Here's Who Was There—from Musk to Bezos*, FORBES, <https://www.forbes.com/sites/maryroeloffs/2025/01/20/billionaires-worth-a-combined-12-trillion-attended-trumps-inauguration-heres-who-was-there-from-musk-to-bezos/> [perma.cc/9XBK-8LHX] (Jan. 21, 2025, 8:30 AM).

fact checkers.⁵ A year before the election, Elon Musk laid off 75% of all Twitter/X's content moderators and moved to a "community notes" model. This system both eliminates professional quality control and gives a voice to users who spread disinformation.⁶ Meta's announcement that it will end all third-party fact checking, actively degrading the safety and quality of its services in order to curry favor with the incoming administration, is only possible because of the platform's monopoly power. Imagine if Coca-Cola announced it was no longer spending resources on the quality and safety of its beverages and had fired all the workers that carry out testing in its plants. Consumers would promptly start drinking Pepsi and Spindrift instead of Coke. Dominant digital platforms have always declined to provide quality services because without meaningful competition, they have no incentive to shoulder the high costs of quality. Now, some are repackaging this refusal to invest in the consumer experience as a principled stand against

⁵ See Press Release, Joel Kaplan, Chief Glob. Affs. Officer, Meta, More Speech and Fewer Mistakes (Jan. 7, 2025), <https://about.fb.com/news/2025/01/meta-more-speech-fewer-mistakes/>; see also Mike Isaac & Theodore Schleifer, *Meta to End Fact-Checking Program in Shift Ahead of Trump Term*, N.Y. TIMES (Jan. 7, 2025), <https://www.nytimes.com/2025/01/07/technology/meta-fact-checking-facebook.html> [perma.cc/2ZSH-VRCM]. Elon Musk's role in the current administration as the arbiter of the "Department of Government Efficiency" is a related, evolving situation, and is not the focus of this paper. See Meg Kinnard, *A Comprehensive Look at DOGE's Firings and Layoffs so Far*, AP NEWS, <https://apnews.com/article/doge-firings-layoffs-federal-government-workers-musk-d33cdd7872d64d2bdd8fe70c28652654> [perma.cc/GV79-Q2CQ] (Feb. 21, 2025, 7:08 PM); see also Soo Rin Kim, *As Musk Works to Slash Federal Spending, His Own Firms Have Received Billions in Government Contracts*, ABC NEWS (Feb. 10, 2025, 7:22 PM), <https://abcnews.go.com/US/musk-works-slash-federal-spending-firms-received-billions/story?id=118589121> [perma.cc/KW5Y-W4JS].

⁶ Kate Conger, *Elon Musk Wants People on X to Police Election Posts. It's Not Working Well.*, N.Y. TIMES (July 25, 2024), <https://www.nytimes.com/2024/07/25/technology/elon-musk-x-community-notes-election.html> [perma.cc/8EYX-4E8X].

“censorship.”⁷ This outcome should come as no surprise: without a regulator in the United States to set minimum standards, unfettered monopolists are free to degrade quality and safety, just as automakers could once build cars that were “unsafe at any speed.”⁸ Digital platforms will not improve their quality until lawmakers establish, as they have for cars, both quality standards and a regulator to enforce them.

[2] When a firm gains substantial market power, its fear of losing customers to rivals diminishes. This security allows the firm to reduce expensive activities like offering discounts, spending on research and development, and providing high-quality service. While price is often the focus of investigation and litigation, one of the lessons from decades of competition enforcement is that firms with high entrenched market power also provide lower quality than consumers are accustomed to receiving in more competitive markets.

[3] Today’s biggest competition challenge is enforcement against digital platforms with significant market power. In Europe, enforcement is occurring through the Digital Markets Act, the Digital Services Act, and the GDPR.⁹ It is becoming more and more obvious that, absent regulation, digital gatekeepers degrade quality and safety below the level a competitive market would provide. This problem is accentuated in the context of a

⁷ Liv McMahon et al., *Facebook and Instagram Get Rid of Fact Checkers*, BBC NEWS (Jan. 7, 2025), <https://www.bbc.com/news/articles/clj74mpy8klo> [perma.cc/G5H9-NWEN].

⁸ See *infra* note 48.

⁹ The GDPR is designed to raise the quality of digital services by improving privacy safeguards. The DSA requires platforms to measure and mitigate user and social harms. The DMA is meant to increase competition in digital markets so that firms are incentivized to innovate and improve quality in order to retain customers. See generally Regulation (EU) No. 2016/679, 2016 O.J. (L 119); Regulation (EU) No. 2022/2065, 2022 O.J. (L 277); Regulation (EU) No. 2022/1925, 2022 O.J. (L 265).

digital gatekeeper for several reasons: consumers have difficulty assessing quality; consumers are not able to respond to a lack of quality; and there is no regulator to set even the most minimal baseline for quality (as exists in the EU and US for cars or bread). In the United States, platforms are attempting to ingratiate themselves with the Trump administration by claiming that this lack of investment in quality and safety is good because it promotes “free speech.”¹⁰ But when Mark Zuckerberg announced that Meta was ceasing all third-party fact-checking, he admitted that there would be more “bad stuff” on the platforms¹¹ and that people would “virtue signal[]” by leaving them.¹²

[4] When a regulator has done its job, consumers value the reduction in injury and death from airbags in cars more than the increased cost of safer cars (when they are fully informed of the risks and costs). Likewise, optimal digital regulation ensures that society (which includes consumers and non-consumers alike) values the reduction in, for example, mental health harms more than any increased cost (or reduced excitement) of social media. Gatekeepers resist supplying quality because increasing the quality of digital services beyond the level already provided by the incumbent gatekeepers will lower their profits. We know this because if improved quality and safety would increase profit, the gatekeeper would have already increased quality and safety. The problem is compounded because the level of quality and safety a regulator might demand is likely to be very expensive for the gatekeeper (for reasons we describe below). Gatekeepers may try to

¹⁰ See Kaplan, *supra* note 5.

¹¹ See Kaplan, *supra* note 5.

¹² Pranav Dixit, *Mark Zuckerberg Says Users Who Leave Meta After Fact-Checking Shutdown Would Be 'Virtue Signaling'*, BUS. INSIDER (Jan. 8, 2025), <https://www.businessinsider.com/mark-zuckerberg-dismissed-concerns-users-leaving-meta-platforms-virtue-signaling-2025-1> [perma.cc/MV3Z-5QT5].

steer regulators toward solutions that are automated, and therefore cheaper, but do not raise quality to the level society requires.

[5] In some cases, the cost of providing a safe product might exceed the amount consumers would be willing to pay. In other words, the user's value of the safe product is less than the cost of its production, so no profit can be earned by creating it. Home insulation made of asbestos and snacks made of trans fats are examples of products where new information about their danger to consumers and the resulting regulation caused exit of the products. Yet these regulations resulted in a net gain: increases in health and life expectancy.

[6] If the total cost is larger than the benefit of the product, the platform has negative value. A regulation that mandates quality could be an existential threat to a digital platform. A company worried about its true value proposition (if it had to produce a safe version of the product) would have both an incentive to try to block any regulation, and tremendous resources to do so due to its market power. Such a digital platform faces being driven out of business because the cost of quality is higher than its revenue.

[7] It is becoming increasingly apparent that some digital business models and some digital platform designs are dangerous to individual users and society. This lag in understanding—common when technologies are new—enabled the popularity of digital services among consumers who were, at the same time, being harmed by them. Now this harm (or, in the words of Zuckerberg, “bad stuff”) is being exposed and is the topic of national conversation, as is the platform's attempt to sell it as a benefit to consumers. This Article explains the source of the digital quality and safety problem, and that regulation is necessary to solve it.

III. Gatekeepers do not Offer Efficient Quality Levels Because They are Monopolies

[8] Because of its market power, a dominant digital platform can degrade even observable quality to an inefficient level without losing sales. Quality is inefficiently low because, although consumers would value the improved product more than the cost of making the improvement, there is no rival to make a better offer, so the consumer chooses the low-quality product over none at all. Robust competition prevents this inefficiency from occurring in other markets, such as those for cars and coffee shops. This dynamic is the reason that suboptimal quality is common in the case of monopoly power.¹³

[9] The fact that the biggest digital platforms demonstrate entrenched market power and operate in concentrated markets is well known. In 2019, reports in the EU, UK, and US all made this point.¹⁴ Government antitrust

¹³ In the context of digital platforms, this degradation of quality has been referred to colorfully as “enshittification.” Cory Doctorow, *Too Big to Care: Enshittification Is a Choice*, MEDIUM (Apr. 4, 2024), <https://doctorow.medium.com/https-pluralistic-net-2024-04-04-teach-me-how-to-shruggie-kagi-caaa88c221f2> [perma.cc/PB6E-7UP9] (“Essentially, Google is saying that they don’t need to spend money on quality, because we’re all locked into using Google search. It’s cheaper to buy the default search box everywhere in the world than it is to make a product that is so good that even if we tried another search engine, we’d still prefer Google. This is enshittification. Google is shifting value away from end users (searchers) and business customers (advertisers, publishers and merchants) to itself.”).

¹⁴ DIGIT. COMPETITION EXPERT PANEL, UNLOCKING DIGITAL COMPETITION 4 (2019); *Stigler Committee on Digital Platforms: Final Report*, CHI. BOOTH (Sept. 16, 2019), <https://www.chicagobooth.edu/research/stigler/news-and-media/committee-on-digital-platforms-final-report> [perma.cc/XX5Z-5X64].

enforcement began in Europe with a case against Google Search in 2010¹⁵ and has continued with Google Android (2015),¹⁶ Apple (2020),¹⁷ Facebook (2022),¹⁸ Amazon (2022),¹⁹ and Google Ad Tech (2023).²⁰ The United States was slower, but initiated litigation against Google Search and Meta

¹⁵ European Commission Press Release IP/10/1624, The Commission, Antitrust: Commission Probes Allegations of Antitrust Violations by Google (Nov. 30, 2010), https://ec.europa.eu/commission/presscorner/detail/en/IP_10_1624 [perma.cc/S65E-ETJE].

¹⁶ European Commission Press Release IP/15/4780, The Commission, Antitrust: Commission Sends Statement of Objections to Google on Comparison Shopping Service; Opens Separate Formal Investigation on Android (Apr. 14, 2015), https://ec.europa.eu/commission/presscorner/detail/en/IP_15_4780 [perma.cc/Y7PX-8FGB].

¹⁷ *Antitrust: Commission Opens Investigations into Apple's App Store Rules*, EUR. COMM'N (June 15, 2020), https://ec.europa.eu/commission/presscorner/detail/es/ip_20_1073 [perma.cc/VG9Z-QPVW].

¹⁸ *Antitrust: Commission Sends Statement of Objections to Meta Over Abusive Practices Benefiting Facebook Marketplace*, EUR. COMM'N (Dec. 18, 2022), https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7728 [perma.cc/K4ZN-R4UV].

¹⁹ *Antitrust: Commission Accepts Commitments by Amazon Barring It from Using Marketplace Seller Data, and Ensuring Equal Access to Buy Box and Prime*, EUR. COMM'N (Dec. 19, 2022), https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7777 [perma.cc/YP2A-ZS87].

²⁰ *Antitrust: Commission Sends Statement of Objections to Google over Abusive Practices in Online Advertising Technology*, EUR. COMM'N (June 13, 2023), https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3207 [perma.cc/22RU-7X5W].

in 2020,²¹ Google Ad Tech and Amazon in 2023,²² and finally Apple in 2024.²³ All of these defendant platforms have market power and limited substitutes, which indicate that their quality is likely suboptimal.

[10] A business strategy that produces a low-quality product for a low cost does no harm if: (1) the product meets the baseline rules a regulator imposes (its net benefit is positive), and (2) consumers are fully informed and affirmatively choose the product. For example, a ballpoint pen made of plastic and poor ink might be a good choice for some consumers because it is substantially cheaper than fancier pens and still gets the job done. Breyers ice cream suits some consumers better than Häagen-Dazs because it is cheaper, but both are safe to eat. Likewise, a car that meets all safety standards but has a poor sound system and slower acceleration is lower quality than one with a premium sound system, quick pickup, and a stylish interior. The former is likely to be cheaper; it also meets the needs of some consumers and provides positive net benefits to them. Notice that if quality can be improved for a lower cost than its value to consumers, a manufacturer is incentivized to make that improvement without any need for regulation because it can sell the product at a higher price to the (subset of) consumers who value quality. Consumers of Häagen-Dazs ice cream

²¹ Press Release, Dep't of Just., Justice Department Sues Monopolist Google for Violating Antitrust Laws (Oct. 20, 2020), <https://www.justice.gov/opa/pr/justice-department-sues-monopolist-google-violating-antitrust-laws> [perma.cc/5RDK-PLXU]; Press Release, Fed. Trade Comm'n, FTC Sues Facebook for Illegal Monopolization (Dec. 9, 2020), <https://www.ftc.gov/news-events/news/press-releases/2020/12/ftc-sues-facebook-illegal-monopolization> [perma.cc/B5CJ-WQVR]; Complaint at 1, FTC v. Facebook Inc., No. 1:20-cv-03590 (D.D.C. Jan. 13, 2021).

²² Complaint at 1, United States v. Google LLC, No. 1:23-cv-00108 (E.D. Va. filed Sept. 26, 2023); Press Release, Fed. Trade Comm'n, FTC Sues Amazon for Illegally Maintaining Monopoly Power (Sept. 26, 2023), <https://www.ftc.gov/news-events/news/press-releases/2023/09/ftc-sues-amazon-illegally-maintaining-monopoly-power> [perma.cc/QC7G-9436].

²³ Complaint, United States v. Apple Inc., No. 2:24-cv-04055 (D.N.J. filed Mar. 21, 2024).

will recognize this strategy; indeed, it is common. In the automobile market, many consumers find the utility from a medium or luxury model to be larger than the incremental cost of quality, which is why the cheapest cars on the market do not claim all sales.

[11] Firms competing for the business of consumers who can evaluate quality will make these efficient production decisions. A firm may produce a product line with different features (e.g. Lexus and Toyota), or the market may support two different firms (e.g. Breyers and Haägen-Dazs). The market is likely to work well when consumers understand the value of quality, because they will move their business to the product they prefer. However, the quality of many products and services is hard to evaluate; consider higher education, hospital services, or insurance. The impact of a social media service on the user's mental health is likewise hard for a user to evaluate. In the case of the most powerful digital platforms, another problem arises: not only are consumers uninformed, but they have no rival service to move to if they are unhappy with the platform's quality. The only options for the consumer are using a low-quality digital product or abandoning the market entirely.

A. Digital Quality is Difficult for Consumers to Assess

[12] Safety and quality are inextricably linked; safety can be considered a subset of quality or a synonym. The causes of degraded quality and safety are the same, as are the reasons that consumers have difficulty assessing them. Cognitive limitations, asymmetric information, and behavioral biases contribute to the difficulty that end users have in evaluating safety and quality. The fact that the product is new is also a barrier to consumers being able to evaluate with the same discernment they apply to products they have consumed for many years and from many suppliers. Any one consumer cannot experience the counterfactual (fewer ads, different content moderation, more choices) of the service they use, and therefore has a hard time knowing what attributes are missing. Missing features on digital platforms are more difficult to identify than the poor sound system or slow

acceleration of a car. New products are also harder for governments to regulate since there is no body of literature alerting society to any problems, and there may be no established regulator with sectoral expertise.

[13] Further, harms from low quality digital services, like degraded mental health, may be difficult to observe directly or tie to the design of a product. For example, it is difficult—if not impossible—to determine whether a social media consumer is seeing posts purposefully pushed to increase engagement through anger, if the number of sponsored posts has gone up, or if posts on certain topics are surfacing more because of an algorithm designed to increase engagement. There is also harm from choice architecture that steers consumers to the option most profitable for the platform. Examples include use of personal data, automatically queuing videos, and the convoluted multi-step processes to cancel a service.²⁴ The increasing use of sophisticated algorithms to help platforms design services and steer consumers exacerbates this problem: consumers “choose” a service they have not asked for, and in many cases do not like, without fully recognizing its harms.²⁵

[14] In addition, consumers may be fooled when a service has a monetary price of zero. A consumer who pays out of pocket for a poor meal in a

²⁴ Complaint, Fed. Trade Comm’n v. Amazon.com, Inc., No. 2:23-cv-0932 (W.D. Wash. filed June 21, 2023); see *FTC Takes Action Against Amazon for Enrolling Consumers in Amazon Prime Without Consent and Sabotaging Their Attempts to Cancel*, FED. TRADE COMM’N (June 21, 2023), <https://www.ftc.gov/news-events/news/press-releases/2023/06/ftc-takes-action-against-amazon-enrolling-consumers-amazon-prime-without-consent-sabotaging-their> [perma.cc/DCA7-GLDX].

²⁵ See Erik Hoel, *A.I.-Generated Garbage is Polluting Our Culture*, N.Y. TIMES (Mar. 29, 2024), <https://www.nytimes.com/2024/03/29/opinion/ai-internet-x-youtube.html> [perma.cc/PDA6-GBTJ] (calling for a “Clean Internet Act”); Caroline Mimbs Nyce, *Google Is Playing a Dangerous Game with AI Search*, ATL. (June 21, 2024, 11:39 AM), <https://www.theatlantic.com/technology/archive/2024/05/google-search-ai-overview-health-webmd/678508/> [perma.cc/4KBA-TJJ2].

restaurant will have a sense that they did not receive a good deal. But when a platform's revenue comes from digital advertising, consumers often get the platform "for free." This ostensibly "free" good may confuse the consumer into believing that they have not "paid" and therefore cannot demand reasonable quality. In fact, the consumer may have paid a high price by sharing their attention and personal data. The exercise of market power in this setting appears in more data extraction and lower-quality services, rather than a higher monetary price.

B. The Digital Platform Business Model Enables Degraded Quality

[15] Economists often describe digital technologies as having high fixed costs and low variable costs. Indeed, for digital services, marginal costs are often near zero. Because fixed costs are paid just once, regardless of the number of users, and because each instance of use has such a low variable cost, the profits from output expansion are huge. Each new user, additional search, or view brings in revenue from advertising while raising costs by very little. Even technology firms with relatively high variable costs—for example, hardware like the iPhone—can have gross margins of over 50% because of the significant software and ecosystem elements of the products.²⁶

[16] The profitability of additional users is driven by the cost structure just described combined with the enormous scale of these platforms. Consider the scope: estimates show that in 2022, Google had 4.3 billion

²⁶ See Gregg Keizer, *Apple's iPhone Profit Margin Greater than 50%*, COMPUTERWORLD (Jul. 3, 2007), <https://www.computerworld.com/article/1578065/apple-s-iphone-profit-margin-greater-than-50.html#:~:text=The%20only%20difference%20between%20the,52%25%20for%20the%20cheaper%20model> [perma.cc/7ECS-6VQF] (noting that when the iPhone was first introduced in 2007, its profit margin was over 50%).

users of its search engine and nearly \$70 billion in profits.²⁷ It follows logically that having already invested in crawling and indexing the web and developing a search algorithm, Google's incremental cost of a search is low. Similarly, in 2022, Apple sold 232 million iPhones, which represented 50% of its revenue, and earned an overall (from advertising, home services, and sales of other products like computers and headphones) \$97 billion in profits.²⁸ Having built software for the iPhone, and developed its ecosystem with accessories and services like memory and backup storage, Apple earns a gross margin around 40% on each handset (down from 50% when the iPhone was first introduced), while its services have a gross margin of over 70%.²⁹ Facebook and Instagram have approximately three billion monthly average users, which earned Meta over \$23 billion in profits in 2023.³⁰

²⁷ Alphabet Inc., Annual Report (Form 10-K) (Feb. 2, 2023), <https://www.sec.gov/Archives/edgar/data/1652044/000165204423000016/goog-20221231.htm> [perma.cc/4AWE-8D56]; *see also* Alphabet Quarterly Earnings Press Releases, https://abc.xyz/assets/investor/static/pdf/2022Q3_alphabet_earnings_release.pdf?cache=4156e7f [perma.cc/U65K-U3LF].

²⁸ *See* Derek Saul, *Apple Beats Estimates for Quarterly Profit, Sales Even as Annual Profits Slide*, FORBES, <https://www.forbes.com/sites/dereksaul/2023/11/02/apple-beats-estimates-for-quarterly-profit-sales-even-as-annual-profits-slide/?sh=74c7805f645c> [perma.cc/2TRZ-S2CS] (Nov. 2, 2023, 4:39 PM); David Curry, *Apple Statistics 2025*, BUS. APPS, <https://www.businessofapps.com/data/apple-statistics/> [perma.cc/8LVL-NXNS] (Feb. 18, 2025).

²⁹ John Koetsier, *73%: This 1 Number Shows Why Apple's Future Is in Services Not Devices*, FORBES (Feb. 2, 2024, 1:42 PM), <https://www.forbes.com/sites/johnkoetsier/2024/02/02/73-this-1-number-shows-why-apples-future-is-in-services-not-devices/#> [perma.cc/GQ58-M4HJ]; *see also* Gregg Keizer, *Apple's iPhone Profit Margin Greater than 50%*, COMPUTERWORLD (July 3, 2007), <https://www.computerworld.com/article/1578065/apple-s-iphone-profit-margin-greater-than-50.html> [perma.cc/DH67-XGJU].

³⁰ Mike Isaac, *Meta Posts 23% Growth as Ads Rebound, with Profit More than Doubling*, N.Y. TIMES (Oct. 25, 2023), <https://www.nytimes.com/2023/10/25/technology/meta-facebook-quarterly-earnings.html> [perma.cc/KFV4-MRRN].

Having built those social media sites and developed the algorithm that chooses the content to show users, Meta's cost of serving a new user, or an existing user for another few minutes, is low.

[17] Now consider how the top management of one of these firms analyzes a possible increase in the quality of the service. If an improvement can be implemented with a fixed cost, it will have a small impact on average cost because the firm is already operating at a huge scale. The quality improvement—if users perceive it—will increase demand. Combined, it is easy to see that there is a set of parameters that deliver a net gain for the corporation from many quality improvements. By contrast, quality improvement that can only be achieved with a variable cost input will raise the cost of serving every user, and the number of users is enormous. This, holding all else equal, has much less promise of a net profit increase. In other words, if the product can be designed in a way that is “scalable,” i.e. all fixed cost and no variable cost, then growth and size are more profitable. When future sales have high margins, growth is more valuable, so future profits and the stock price will rise. The low marginal cost business model is therefore the first choice for the company.

IV. LACK OF INVESTMENT IN QUALITY DEGRADES PRODUCT SAFETY

[18] Digital gatekeepers cause a variety of harms, from inconvenience to deception to the endangerment of user safety. On one end of the spectrum, the overall lack of customer service options in digital services is an example of low quality. For example, an “FAQ” section of a website and an automated chatbot may not solve a user's problem. After exhausting these options, a consumer may want to reach out to customer service by phone or email. These solutions often require humans, and therefore increase the marginal cost of serving users, so gatekeepers rarely invest in such solutions.

[19] Reviews are another area where we see low quality that harms both consumers and small businesses. Online fraud and counterfeit products are problematic in general, and fake online reviews are manifestations of these hazards. Such reviews range from enthusiastic endorsements from fictional users to more dangerous content like malicious or harmful attacks on rival businesses. Reviews posted by non-users harm business owners and consumers alike, and platforms have repeatedly sued companies that produce fake reviews.³¹ When quality falls enough to threaten demand, a monopoly platform will invest in scalable, fixed-cost tools to better address these issues.³² Despite these efforts, millions of erroneous and manufactured reviews remain online, negatively affecting both businesses

³¹ Jackie Wattles, *Amazon Sues More than 1,000 Sellers of 'Fake' Product Reviews*, CNN: BUS. (Oct. 19, 2015, 11:39 AM), <http://money.cnn.com/2015/10/18/technology/amazon-lawsuit-fake-reviews/> [perma.cc/EZ4M-NKE9]; Hilary Brueck, *Amazon Sues Again to Kill More Fake Product Reviews*, FORTUNE (Apr. 26, 2016), <https://fortune.com/2016/04/26/amazon-more-fake-review-lawsuits/> [perma.cc/4NHU-9936].

³² See generally Google, Response to Request for Comments on the Use of Reviews and Endorsements ANPR, P214504 (Jan. 9, 2023) at 8, https://downloads.regulations.gov/FTC-2022-0070-0034/attachment_1.pdf [perma.cc/UW9E-XF4Y] ("Engineers and analysts closely monitor and study suspicious activities in ratings and reviews, and improve our models' precision and recall on a regular basis. To provide some more concrete examples, for Maps and the Play store, we plan to further expand our machine learning-based detection systems to combat emerging developments around 5-star review spikes. For Maps, our 2023 plans also include continued investments in proactive risk intelligence to detect abuse trends, identifying coordinated activity using both supervised and unsupervised models, and applying abuse detection advancements to remove older fake reviews. And for Shopping, our emerging plans for 2023 include advancing capabilities through machine learning to further increase our ability to identify and take down fake reviews and associated accounts.").

and consumers.³³ Processes and systems for dispute resolution would significantly improve the quality of online reviews and e-commerce sites, but such systems are costly to design, implement, and staff. To protect an innocent small business from a malicious attack that could drive away most of its potential customers, a human being will likely have to review the relevant evidence and then intervene.

[20] Next, consider the harm to consumers from online ads. Though targeted ads can improve the user experience, they can also facilitate exploitation, and platforms that earn revenue from these ads lack sufficient incentive to ensure that the ads themselves are not harmful. Well-known problems include the direct marketing of dangerous products like online gambling³⁴ or fraudulent for-profit universities.³⁵ Vulnerable consumers like depressed teenagers can be sold products they would not otherwise

³³ The UK Competition and Markets Authority has set requirements for these large online platforms to enhance their systems for identifying, removing, and preventing such services. See Competition and Markets Authority, *Fake and Misleading Online Reviews Trading*, GOV.UK, <https://www.gov.uk/cma-cases/fake-and-misleading-online-reviews> [perma.cc/AKN5-FUT8] (Apr. 9, 2021); see also Complaint for Injunctive Relief & Other Relief at 1, *Arizona v. Meta Platforms, Inc.*, No. 4:23-cv-05448 (N.D. Cal. filed Oct. 24, 2023).

³⁴ The link between gambling advertising and gambling addiction is well-documented. See André Syvertsen et al., *Relationships Between Exposure to Different Gambling Advertising Types, Advertising Impact and Problem Gambling*, 38 J. GAMBLING STUD. 465, 467 (2021). These harms are likely to increase given that sports betting is now legal in thirty states and sports betting apps are working hard to normalize the use of their products. See Jack O'Donnell, *The Ugly Truth Behind All Those Fun Gambling Ads*, POLITICO (Feb. 1, 2022, 7:00 AM), <https://www.politico.com/news/magazine/2022/02/13/ugly-truth-behind-fun-gambling-ads-00008380> [perma.cc/DNN5-GH6K].

³⁵ See David Halperin, *Scam Websites, Promising COVID-19 Advice, Steer Students to Predatory Colleges*, REPUBLIC REP. (Apr. 15, 2020, 9:26 AM), <https://www.republicreport.org/2020/scam-websites-promising-covid-19-advice-steer-students-to-predatory-colleges/> [perma.cc/5PJJ-7RHC].

seek, while the targeting process identifies unsophisticated consumers to show ads for high return financial assets.

[21] Over 90% of online ads are “programmatic digital display advertising,” meaning that the advertising process (including decisions about to whom it is shown, when, where, and how often, as well as how much companies pay) is completely automated.³⁶ New dangerous products can be matched with target audiences by the algorithm without any oversight from human beings. It remains difficult in the United States even for publishers and brands to learn whether their ads are being shown to the intended audience in a safe way.

[22] Harms also come in the form of higher prices. While many digital platforms do not charge consumers a monetary price, they extract users’ data and their attention; the transaction is a barter. We know that one harm from monopoly is a price above the competitive price, and we can carry that logic over to this setting by converting what the user barterers into its money value. The net “price” of the service is any money payment (perhaps zero) plus the value of the personal data gathered, plus the value of attention combined with the personal data. The sum of these components constitutes the monopoly price paid by the end user. The increment above the competitive price is a direct harm. Advertisers or other business users who pay the platform a monetary price for advertising or other services likewise face a monopoly markup that is a harm.

[23] For dominant digital platforms, the refusal to improve quality is not only a cost-saving measure, but a strategy to increase profits from other business lines at the direct expense of the consumer experience. For example, the Federal Trade Commission’s Complaint against Amazon

³⁶ Sara Lebow, *Guide to Programmatic Advertising: Channels, Ad Types, Service Models, and Players*, EMARKETER (Aug. 27, 2024), <https://www.emarketer.com/learningcenter/guides/programmatic-digital-display-ad-spending/> [perma.cc/WR2M-75KP].

explains that Jeff Bezos instructed executives to accept more junk advertisements (known internally as “defects”) because the advertising revenue to Amazon is more than the sales it loses from the obvious degradation in search quality and higher prices.³⁷

[24] Even when the ads themselves are not exploitative, because they are not the reason the user comes to the platform, watching ads rather than interacting with friends lowers the quality of the experience. Further, this seemingly minor inconvenience—having to view advertising to access a service with a monetary price of zero—is for the gatekeeper an incentive to design a product in a way that can (and has) actively harmed users. The business model of selling ads means profit is higher if consumers spend a longer time on the platform. The longer users stay, the more ads they see, and the more profit the platform earns. It is not surprising, therefore, to learn that gatekeepers design ad-supported social media to be addictive.³⁸ And an addictive product is not a safe product by definition.

[25] This drive towards increased individual consumption means, of course, that both individual and societal harms are magnified, spread, and perpetuated by social media.³⁹ This lack of digital quality—in terms of lack of safety for individuals and communities—has taken time for consumers

³⁷ Complaint, *supra* note 24, ¶ 5.

³⁸ See Complaint for Injunctive & Other Relief, *Arizona v. Meta*, No. 4:23-cv-05448 (N.D. Cal. filed Oct. 24, 2023), <https://coag.gov/app/uploads/2023/10/23.10.24-Doc.-1-Complaint-People-v.-Meta-23cv05448.pdf> [perma.cc/UZF5-MPYD]; Complaint, *New York v. TikTok, Inc.*, No. 452749/2024 (N.Y. App. Div. filed Oct. 8, 2024), https://ag.ny.gov/sites/default/files/court-filings/3_redacted_complaint_signed-003.pdf [perma.cc/7V8B-LTUJ] (showcasing one of fourteen separate suits).

³⁹ James N. Rosenquist, et al., *Addictive Technology and Its Implications for Antitrust Enforcement*, 100 N.C. L. REV. 431, 438 (2022), <https://scholarship.law.unc.edu/cgi/viewcontent.cgi?article=6866&context=nclr> [perma.cc/5G9H-ET2B].

and regulators to appreciate both because the business model of low quality took time to evolve, and then additional time passed before its impact became measurable. But now, thanks to the work of social scientists, lawyers, policymakers, and whistleblowers, the threats to safety and public health posed by digital platforms are becoming clearer.⁴⁰ The Center for Humane Technology identified this problem early on. Since then, there has been a large amount of academic research studying the specific impact of product design, many principles of which have made their way into the complaints against Meta and TikTok.⁴¹ For example, the states have accused Meta of designing “psychologically manipulative product features to induce young users’ compulsive and extended use” of Instagram, and specifically call out design features, including alerts and infinite scroll, as addictive.⁴² Whistleblowers, including most notably Frances Haugen, have noted that digital platforms are aware of the addictive nature of their technology, and continue to harness it for profit, rather than improve the quality of their

⁴⁰ Paul Mozur, *Genocide Incited on Facebook, with Posts from Myanmar’s Military*, N.Y. TIMES (Oct. 15, 2018), <https://www.nytimes.com/2018/10/15/technology/myanmar-facebook-genocide.html> [perma.cc/ND5R-JR3E]; see Order re: Motion to Dismiss at 14, *In re Social Media Adolescent Addiction/Personal Injury Products Liability Litig.*, MDL No. 3047 (N.D. Cal filed Oct. 15, 2024); see Michael Lavi, *The Good, the Bad, and the Ugly Behavior*, 40 CARDOZO L. REV. 259, 260 (2019), <https://cardozolawreview.com/the-good-the-bad-and-the-ugly-behavior/> [perma.cc/AZ2L-VSQG]; see also Chas Newkey-Burden, *Does TikTok Have a 'Nazi Problem'?*, WEEK (July 31, 2024), <https://theweek.com/tech/does-tiktok-have-a-nazi-problem> [perma.cc/GG49-4LWZ].

⁴¹ See generally THE SOCIAL DILEMMA (The Center for Humane Technology 2020).

⁴² Mike Capuzzo, *40+ States Sue Over Facebook and Instagram ‘Addictive Features’ That Allegedly Exploit Kids, Teens*, DEFENDER (Oct. 26, 2023), <https://childrenshealthdefense.org/defender/states-sue-meta-addictive-features-children-teens/> [perma.cc/4M2U-SU5N].

products to keep its users safe.⁴³ Likewise, thirteen states and the District of Columbia recently sued TikTok for unlawfully promoting “features [that] exploit children's underdeveloped psychological and neurological controls to lock young users into cycles of excessive and unhealthy usage of social media.”⁴⁴ As one employee stated regarding Meta: The “overall company goal is total teen time spent.”⁴⁵ Thus, the mission of the platforms and the interest of consumer health and safety are in direct conflict. This observation makes it clear that the solution to the degradation of digital quality will not come from digital gatekeepers themselves.

[26] Consumer safety has become a focus of legitimate public concern. The tools available to governments to increase safety include general prohibitions against fraud and deception, private lawsuits by harmed parties against digital platforms, and sectoral regulators that have the power to issue and enforce specific rules. In the United States, this last option for regulation of digital platforms is not available. One of the reasons why digital services do not provide the quality consumers have come to expect from other products and services is that in the United States, there is no

⁴³ Cecilia Kang, *Facebook Whistle-Blower Urges Lawmakers to Regulate the Company*, N.Y. TIMES (Oct. 5, 2021, 1:14 PM), <https://www.nytimes.com/2021/10/05/technology/facebook-whistle-blower-hearing.html?pgtype=Article&action=click&module=RelatedLinks> [perma.cc/GS49-MJSY].

⁴⁴ See Complaint, *supra* note 23.

⁴⁵ Natasha Singer, *How Mark Zuckerberg's Meta Failed Children on Safety, States Say*, N.Y. TIMES (June 22, 2024), <https://www.nytimes.com/2024/06/22/technology/zuckerberg-instagram-child-safety-lawsuits.html> [perma.cc/TYA9-4LJL]; see also *The Fiscal Year 2025 Federal Trade Commission Budget: Hearing Before the U.S. House of Representatives Energy & Com. Comm. Subcommittee on Innovation, Data & Com.*, 118th Cong. (2024) (statement of Alvaro M. Bedoya, Commissioner, Fed. Trade Comm'n), https://www.ftc.gov/system/files/ftc_gov/pdf/subcommittee-testimony-alvaro-bedoya.pdf [perma.cc/8UTQ-XZHD] (detailing mental health harms).

regulator setting safety standards as there is for automobiles, hospitals, banks, and chemical manufacturers.⁴⁶ In Europe, legislators recognized this problem, leading to the Digital Safety Act and other laws which make digital businesses safer and more competitive.

V. GATEKEEPERS' RESISTANCE TO REGULATION IS PART OF THEIR BUSINESS MODEL

[27] Digital platforms typically form and grow by using a fixed-cost solution (software) to create and adjust the quality of the user experience. As noted above, quality may not be high enough with this approach. Once those platforms achieve a level of impact and market dominance that brings with it social responsibility, legislatures responsive to consumer needs are likely to pass regulations mandating higher operating standards. This may require the platform to use other tools, such as the time and effort of workers, to raise quality and safety. Those requirements may lower profitability, as has happened with similar businesses in past generations. As a legal matter, a platform is not entitled to the same profitability and margins it enjoyed before its consumers became aware of its safety risks or violations of competition law, and it must adhere to any new rules adopted by the society in which it operates.

[28] Effective regulation will likely impact profits, so platforms will use their political power to fight it. One common approach is to claim that that regulation will destroy the product and return users to a pre-technical age. Consider an analogy to the history of seatbelts in the U.S. Regulation was needed to make them available and commonly used. In the 1950s, Ford

⁴⁶ See generally Tom Wheeler et al., *New Digital Realities; New Oversight Solutions* (Aug. 20, 2020), <https://shorensteincenter.org/new-digital-realities-tom-wheeler-phil-verveer-gene-kimmelman/> [perma.cc/M92W-JTJB]; see also NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DOT HS 809 835, COST PER LIFE SAVED BY THE FEDERAL MOTOR VEHICLE SAFETY STANDARDS 1 (Dec. 2004) (noting that Federal Motor Vehicle Safety Standards added \$839 to the cost of each car in 2002).

offered cars with lap belts for an extra \$27, but only 2% of consumers purchased them.⁴⁷ The three-point harness we know today was developed in the 1960s, but automobiles were not required to offer them, and passengers were not required to wear them even if they were offered. In 1966, The National Traffic and Motor Vehicle Safety Act was passed (Unsafe at Any Speed was published in 1965), which mandated updated safety standards and created the National Highway Traffic Safety Administration (“NHTSA”) to enforce them.⁴⁸ In the 1980s, the automobile industry continued to lobby against any government mandate to provide safety features in cars, claiming that installing them was too costly and only marginally effective.⁴⁹ Lobbyists also claimed that consumers would not comply with seatbelt laws or wear the seatbelts if they were offered.

[29] Cut to the present day, the U.S. Department of Transportation and NHTSA mandate myriad safety features in cars including crumple fronts, airbags, and roll bars. Seatbelt compliance is over 90%.⁵⁰ Regulation did

⁴⁷ Daniel Ackerman, *Before Face Masks, Americans Went to War Against Seat Belts*, BUS. INSIDER (May 26, 2020, 11:03 AM), <https://www.businessinsider.com/when-americans-went-to-war-against-seat-belts-2020-5> [perma.cc/9P2N-3ZT3].

⁴⁸ RALPH NADER, UNSAFE AT ANY SPEED: THE DESIGNED-IN DANGERS OF THE AMERICAN AUTOMOBILE 124–25 (1965); see also Christopher Jensen, *50 Years Ago, ‘Unsafe at Any Speed’ Shook the Auto World*, N.Y. TIMES (Nov. 26, 2015), <https://www.nytimes.com/2015/11/27/automobiles/50-years-ago-unsafe-at-any-speedshook-the-auto-world.html> [perma.cc/87G3-3DUR].

⁴⁹ Leo C. Wolinsky, *Big Lobbies Clash in Fight on Seat Belts: Hearings Open Today as California Joins Auto Safety Debate*, L.A. TIMES (Feb. 19, 1985, 12:00 AM), <https://www.latimes.com/archives/la-xpm-1985-02-19-mn-546-story.html#:~:text=Auto%20makers%2C%20who%20fear%20passage,or%20a%20seat%20belt%20law> [perma.cc/5USM-YQNA].

⁵⁰ *Seat Belt Safety*, TRAFFIC SAFETY MKTG. (May 2023), <https://www.trafficsafetymarketing.gov/safety-topics/seat-belt-safety#4341> [perma.cc/ZRA2-DTGA].

not return consumers to using a horse and buggy, but much fewer Americans die in car crashes per mile driven than in the 1980s.⁵¹ Cars remained part of a modern convenient lifestyle, but they became safer. We have seen over time that, despite the industry's initial resistance, consumers prefer cars with these safety features so that they and their families are less likely to be harmed while driving. Stop signs, crosswalks, and drivers' licenses are other regulations that enhance the safety of a community full of cars.

[30] The creation of the Consumer Financial Protection Bureau mirrored that of the NHTSA. It had become clear to consumers and regulators alike that certain financial instruments were unsafe—akin to a car with no airbags. Financial safety standards were needed to prevent exploitative mortgages, hidden fees and the like, and these were imposed by government.⁵² New regulations brought financial products in line with other services that rely on quality controls to function. Likewise, nursing homes are required to adhere to certain staffing levels and other levels of quality that may be hidden from the consumer (the decision-maker who is often not the patient). Hospitals must adhere to safety protocols that are similarly difficult for patients to recognize. Digital platforms resemble these industries in that individual consumers often struggle to assess the quality of their products or services, creating the need for outside regulations to improve safety.

[31] Digital platforms often frame the debate about regulation of online safety as if the choice is between the existing car without a seatbelt or the

⁵¹ *Fatality Facts 2022: Yearly Snapshot*, IIHS-HLDI (June 2024), <https://www.iihs.org/topics/fatality-statistics/detail/yearly-snapshot> [perma.cc/9NB8-34X4] (reporting that in 1980, there were 3.3 deaths per 100 million miles drive; in 2022 that number was 1.3).

⁵² Elizabeth Warren, *Unsafe at Any Rate*, DEMOCRACY (2007), <http://democracyjournal.org/magazine/5/unsafe-at-any-rate/> [perma.cc/SUL4-B9ZD]; Donald C. Lampe & Ryan J. Richardson, *The Consumer Financial Protection Bureau at Five: A Survey of the Bureau's Activities*, 21 N.C. BANKING INST. 85, 91 (2017).

horse and buggy. This “all or nothing” fallacy only works if consumers lack the imagination to demand a car with a seatbelt or a social media platform that is safe for children. Being pro-safety is not the same as being anti-technology, it is making a demand about the design of the new technology. Similar platform framing appears in other arguments: A platform may argue that a great majority of users surveyed say that the platform’s current products save them many hours of time per month, or that they would buy the platform’s products again if they were offered. The implicit comparison being put forward with these ‘findings’ is between the current digital service and not having it at all. This false choice offers a framing that distracts from the real, and difficult, policy tradeoffs faced in regulation: cost versus safety.

A. Quality and Safety are Costly

[32] The actions demanded by any effective digital platform regulator are likely to require a variable cost expenditure by the firm because, as argued above, these are the actions the firm has the least incentive to undertake voluntarily. A regulation that requires a higher variable cost per user risks reducing profits a great deal even if there is a positive effect on demand, and because of the market power of platforms, the impact on demand from increasing quality may be small because all consumers are already using the platform.

[33] The effect of additional expenditure by digital platforms to improve quality is illustrated by the differences between the Apple Store and the Google Play Store. The former has always used human moderation and more stringent requirements for the applications it offers. Apple describes its store as “highly curated,” and promises that the quality control it places on applications results in an app store that is the “safest for consumers around the world.”⁵³ There is a widespread and entrenched consumer

⁵³ *App Review Guidelines*, APPLE DEV., <https://developer.apple.com/app-store/review/guidelines/> [perma.cc/9GER-D996] (last visited Feb. 27, 2025).

perception that the Apple App store is “safer,”⁵⁴ and it does indeed have less malware and a better user experience than the Google Play Store (though it remains imperfect).⁵⁵ By contrast, Google’s app store has over 50% more apps than the Apple App store, and a greater share of malicious or dangerous apps, as well as an historic aversion to human reviewers.⁵⁶ Google has only recently announced that it will adopt an improved, but still automated, process for spotting malware and has touted a “combination of human and automated evaluation to review apps and app content.”⁵⁷

[34] In jurisdictions that have required digital services to improve safety, platforms demonstrate that they are perfectly able to achieve mandated goals. Consider Facebook’s operations in Germany, where Nazi content is

⁵⁴ Zak Doffman, *Latest Android Malware Report Shows Gap to iPhone Remains*, FORBES (June 1, 2024, 8:30 PM), <https://www.forbes.com/sites/zakdoffman/2024/06/01/google-android-warning-shows-why-apples-iphone-is-impossible-to-beat/> [perma.cc/8XYW-SK23].

⁵⁵ Braden Newell, *Here’s Why Apple’s App Store Is Better than Google’s Play Store*, MOBILESYRUP (Mar. 6, 2023, 7:04 PM), <https://mobilesyrup.com/2023/03/06/why-apples-app-store-is-better-than-googles-play-store/> [perma.cc/2M2A-83PG].

⁵⁶ Jan Bunk, *A Comparison Between the Most Popular App Stores*, WEBTOAPP.DESIGN, <https://webtoapp.design/blog/app-store-comparison> [perma.cc/H9PN-6MU9] (March 28, 2025).

⁵⁷ *Enforcement Process*, GOOGLE: PLAY CONSOLE HELP, <https://support.google.com/googleplay/android-developer/answer/9899234?hl=en> [perma.cc/JG6V-TUYJ] (last visited Apr. 18, 2025). See Sarah Perez, *Google Play Tightens Up Rules for Android App Developers to Require Testing, Increased App Review*, TECHCRUNCH (Nov. 9, 2023, 9:00 AM), <https://techcrunch.com/2023/11/09/google-play-tightens-up-rules-for-android-app-developers-to-require-testing-increased-app-review/> [perma.cc/R69D-GHBH].

illegal and a platform found with such posts faces large fines.⁵⁸ Facebook deploys over one thousand content moderators for its German site. Though Germany has approximately 43 million monthly Facebook users, less than 1% of Facebook's total user base, it has a much larger share of the platform's content moderators.⁵⁹ Indeed, if we use the 2020 figure of 15,000 moderators, Germany would have had about seven times more Facebook moderators per user than the rest of the world. This data point demonstrates that Facebook's marginal costs are higher where it produces a higher quality, safer product. The solution that we see Facebook deploy when it is required to provide quality is a combination of both scalable code that works imperfectly as well as expensive human moderators. This method of raising quality appears to work in the case of app stores as well.

[35] Frances Haugen explained that preventing violence in countries around the world would require that Meta develop safety systems in different languages.⁶⁰ But as of 2021 in Afghanistan, for example, Facebook

⁵⁸ Martin Coulter & Hakan Ersen, *Social Media Moderators in Germany Seek Improved Working Conditions in Battling Toxic Content*, REUTERS (June 14, 2023, 6:39 AM), <https://www.reuters.com/technology/social-media-moderators-urge-german-lawmakers-tackle-exploitative-working-2023-06-14/> [perma.cc/P29V-5LBW]. Third party moderators in Germany have been pushing for increased labor protections. See *Social Media Content Moderators in Germany Launch Manifesto for Change to the Bundestag!*, FOXGLOVE (June 14, 2023), <https://www.foxglove.org.uk/2023/06/14/moderators-germany-manifesto-bundestag/> [perma.cc/BVE3-GQPP].

⁵⁹ *Number of Facebook Users in Germany from 2019 to 2028 (in Millions)*, STATISTA, <https://www.statista.com/statistics/568790/forecast-of-facebook-user-numbers-in-germany/> [perma.cc/LN92-SBQP] (last visited Apr. 18, 2025); Katrin Benhold, *Germany Acts to Tame Facebook, Learning from Its Own History of Hate*, N.Y. TIMES (May 19, 2018), <https://www.nytimes.com/2018/05/19/technology/facebook-deletion-center-germany.html> [perma.cc/DD2P-6BRB].

⁶⁰ Adam Smith, *Facebook Whistleblower Says Riots and Genocides Are the 'Opening Chapters' If Action Isn't Taken*, INDEPENDENT (Oct. 25, 2021, 2:05 PM), <https://www.independent.co.uk/tech/facebook-whistleblower-zuckerberg-frances-haugen-b1944865.html> [perma.cc/J7UD-QEJF].

could not translate any posts into Dari and Pashto, the country's two main languages, leaving the country devoid of any human content moderators or automatic filters.⁶¹ As of 2020, Facebook had 15,000 third party content moderators. Based on the rough calculations above, to moderate posts at the quality level achieved in Germany, Meta would need a seven-fold increase in content moderators, and obviously more than that if it starts at zero in on a country or language. Moreover, the moderators will be expensive, even if they are low skill workers, because of the dangerous nature of the job. For example, re-training due to high turnover or regularly rotating workers out of content moderation and onto other tasks may be necessary, as well as bearing above-average costs of mental health care.⁶² The relevant compensation, training and protection will be costly, particularly in jurisdictions where labor is organized.⁶³

⁶¹ Isabel Debre & Fares Akram, *Facebook's Language Gaps Let Through Hate-Filled Posts While Blocking Inoffensive Content*, L.A. TIMES (Oct. 25, 2021, 5:11 AM), <https://www.latimes.com/world-nation/story/2021-10-25/facebook-language-gap-poor-screening-content> [perma.cc/N4C7-KX5R].

⁶² See Coulter & Erksen, *supra* note 58; Bobby Allyn, *In Settlement, Facebook to Pay \$52 Million to Content Moderators with PTSD*, NAT'L PUB. RADIO (May 12, 2020, 10:52 PM), <https://www.npr.org/2020/05/12/854998616/in-settlement-facebook-to-pay-52-million-to-content-moderators-with-ptsd> [perma.cc/7DJN-N3KB]; Casey Newton, *The Trauma Floor: The Secret Lives of Facebook Moderators in America*, VERGE (Feb. 25, 2019, 8:00 AM), <https://www.theverge.com/2019/2/25/18229714/cognizant-facebook-content-moderator-interviews-trauma-working-conditions-arizona> [perma.cc/P9QC-TESQ]; Benhold, *supra* note 59; Caroline Kimeu, *'A Watershed': Meta Ordered to Offer Mental Health Care to Moderators in Kenya*, GUARDIAN (June 7, 2023, 8:31 AM), <https://www.theguardian.com/global-development/2023/jun/07/a-watershed-meta-ordered-to-offer-mental-health-care-to-moderators-in-kenya> [perma.cc/QTP8-M7C4].

⁶³ See Thomas Stackpole, *Content Moderation is Terrible by Design*, HARV. BUS. REV. (Nov. 9, 2022), <https://hbr.org/2022/11/content-moderation-is-terrible-by-design> [perma.cc/BAW2-6XP3]; Paul M. Barrett, *It's Past Time to Take Social Media Content Moderation In-House*, TECH POL'Y PRESS (Jan. 18, 2023), <https://www.techpolicy.press/its-past-time-to-take-social-media-content-moderation-in-house/> [perma.cc/6R89-A9AC].

[36] Platforms tout the use of AI for content moderation (Meta, at one time, celebrated its opensource tool as able to “help [...] keep platforms free of terrorist content”)⁶⁴ but it is clear that those tools are not achieving an acceptable level of safety. In the context of content regulation, that code may catch—as Mark Zuckerberg estimated in 2021—95% of the harmful posts.⁶⁵ The problem, of course, is that the platform’s scale means that a 5% error rate will omit hundreds of millions of posts that qualify for take-down.⁶⁶ Platforms will likely argue that this is old news, and because of the rapidly improving and expanding capabilities of AI, content moderation will continue to get cheaper. Indeed, AI may be part of a solution if it becomes capable of improving quality to an acceptable level. However, consumers should not have to wait for that improvement. AI does not do a good enough

⁶⁴ Nick Clegg, *Meta Launches New Content Moderation Tool as It Takes Chair of Counter-Terrorism NGO*, META (Dec. 13, 2022), <https://about.fb.com/news/2022/12/meta-launches-new-content-moderation-tool/> [perma.cc/AKF4-NRTH].

⁶⁵ Kate Canales, *Mark Zuckerberg said Content Moderation Requires ‘Nuances’ that Consider the Intent Behind a Post, but also Highlighted Facebook’s Reliance on AI to do that Job*, BUS. INSIDER: TECH (Mar. 25, 2021, 5:59 PM), <https://www.businessinsider.com/zuckerberg-nuances-content-moderation-ai-misinformation-hearing-2021-3> [perma.cc/C4BZ-A5EQ]; Charlotte Jee, *Facebook Needs 30,000 of Its Own Content Moderators Says a New Report*, MIT TECH. REV. (June 8, 2020), <https://www.technologyreview.com/2020/06/08/1002894/facebook-needs-30000-of-its-own-content-moderators-says-a-new-report/> [perma.cc/MS7Z-D53B]; Paul M. Barrett, *Who Moderates the Social Media Giants? A Call to End Outsourcing*, NYU STERN CTR. FOR BUS. & HUM. RTS. (June 2020), https://static1.squarespace.com/static/5b6df958f8370af3217d4178/t/5ed9854bf618c710cb55be98/1591313740497/NYU+Content+Moderation+Report_June+8+2020.pdf [perma.cc/HE9W-CFF5].

⁶⁶ *Spam*, META: TRANSPARENCY CENTER, <https://transparency.fb.com/policies/community-standards/spam> [perma.cc/P8BA-ZLUA] (last visited Mar. 1, 2025) (reporting that Facebook took action against 5.7 billion pieces of content for violating its anti-spam rules in 2022).

job of moderating content; it makes mistakes, hallucinates, and entrenches bias.⁶⁷ Just as high-quality content moderation depends on human beings, AI depends on humans to train it at a massive scale.⁶⁸ At present, there does not seem to be a way to remove the cost of human beings from the equation and produce a product that meets safety standards.

[37] What users and regulators must recognize is relatively simple: apart from thorny questions about how to make digital platforms safe, requiring safety is a political fight because monopoly platforms have no economic incentive to provide it.⁶⁹ A company producing a valuable product in a competitive industry would not have the power to fight regulation, nor

⁶⁷ See, e.g., Isobel Asher Hamilton, *AI Is Not Smart Enough to Solve Meta's Content-Policing Problems, Whistleblowers Say*, BUS. INSIDER (June 15, 2022), <https://www.businessinsider.com/meta-facebook-ai-cannot-solve-moderation-frances-haugen-daniel-motaung-2022-6> [perma.cc/PXT6-5U7S]; *When AI Gets It Wrong: Addressing AI Hallucinations and Bias*, MIT: SLOAN TEACHING & LEARNING TECHS., <https://mitsloanedtech.mit.edu/ai/basics/addressing-ai-hallucinations-and-bias/> [perma.cc/6FJ7-8YBC]; *The Limitations of Automated Tools in Content Moderation*, NEW AM., <https://www.newamerica.org/oti/reports/everything-moderation-analysis-how-internet-platforms-are-using-artificial-intelligence-moderate-user-generated-content/the-limitations-of-automated-tools-in-content-moderation/> [perma.cc/YL8A-KD64].

⁶⁸ See Josh Dzieza, *AI Is a Lot Of Work: As the Technology Becomes Ubiquitous, a Vast Tasker Underclass Is Emerging — and Not Going Anywhere*, N.Y. MAG. (June 20, 2023), <https://nymag.com/intelligencer/article/ai-artificial-intelligence-humans-technology-business-factory.html> [perma.cc/K5QJ-E9PN].

⁶⁹ See Jack M. Balkin, *How to Regulate (and Not Regulate) Social Media*, KNIGHT FIRST AMEND. INST. COLUMBIA (Mar. 25, 2020), <https://knightcolumbia.org/content/how-to-regulate-and-not-regulate-social-media> [perma.cc/QD3N-WYAG] (“[T]he need for content moderation creates problems of scale. Content moderation that is simultaneously quick, accurate, and at scale is hard to achieve. Accuracy requires increasing the number of moderators (either through hiring or contracting out to other firms) at numbers far greater than most social media companies would like; it also requires treating content moderators much better than they are currently treated by their employers.”); see also SARAH T. ROBERTS, *BEHIND THE SCREEN* 95 (2019).

would their reaction be as strong. A competing firm has lower profits due to the process of competition. If all firms in the industry adopted the same safety requirements of the regulator, all of their costs would go up together. Prices would have to rise to cover the higher costs, but competition among firms would keep margins low as before, meaning little would change for the shareholders of those firms. By contrast, gatekeeper platforms have substantial market power and therefore have high margins and large profits. When such a firm faces much higher costs, it tends to pass through only part of them, though the exact fraction is difficult to predict. From the monopolist's point of view, then, higher quality can be a significant profit sacrifice—and perhaps also a political sacrifice.⁷⁰

B. The EU has Implemented Regulations to Address some of These Ills

[38] In Europe, the DMA and the DSA show that regulation can combat unsafe digital platforms. The DSA requires designated platforms (those with over 45 million EU users, which include, for example, Meta and TikTok) to engage in more rigorous content monitoring or face significant financial penalties.⁷¹ The DSA prohibits platforms from using minors' data to target ads. It also prohibits platforms from using sensitive data (such as health information, political views, sexual orientation, or ethnicity) to target ads, no matter the age of the consumer. The DSA allows targeting on other bases, but platforms are obligated to more clearly label advertisements and inform

⁷⁰ Gangitano, *supra* note 3.

⁷¹ *The Digital Services Act: Ensuring a Safe and Accountable Online Environment*, EUROPEAN COMM'N, https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/digital-services-act_en [PERMA.CC/4LRV-WMGQ] (last visited Apr. 18, 2025). See LUKAS WIEWIORRA & ILSA GODLOVITCH, *THE DIGITAL SERVICES ACT AND THE DIGITAL MARKETS ACT – A FORWARD-LOOKING AND CONSUMER-CENTRED PERSPECTIVE* (June 2021), <https://www.europarl.europa.eu/cmsdata/237109/QA0221821ENN.pdf> [perma.cc/EE8J-CXUY].

consumers who placed the ad, who paid for it, and on what basis the consumer was targeted to be shown the ad.⁷² Platforms must respond to inquiries about content and users, publish reports about transparency, inform users about content moderation, and build mechanisms for users to notify platforms about harmful content. The DSA does not impose specific requirements about what types of content must be removed; instead, it imposes a structure and process on platforms. The DSA also addresses quality and fraud concerns about online marketplaces, requiring increased vetting of vendors and transparency to consumers. The safety provisions aimed at social media platforms are intended to be responsive to world events.⁷³

[39] The DMA requires designated gatekeepers to take certain steps which, if followed, will improve the quality of the consumer experience over time.⁷⁴ Data portability, for example, will allow consumers to more

⁷² EU, The impact of the Digital Services Act on digital platforms (Nov. 2023), <https://digital-strategy.ec.europa.eu/en/policies/dsa-impact-platforms> [perma.cc/4UKB-4HLZ]. The DSA allows targeting on other bases, but platforms are obligated to more clearly label advertisements and inform consumers who placed the ad, who paid for it, and on what basis the consumer was targeted to be shown the ad.

⁷³ See generally WIEWIORRA & GODLOVITCH, *supra* note 71. Recently, the EU demanded that Meta and TikTok specifically provide more information about the measures it has taken to “protect the integrity of elections and following the terrorist attacks across Israel by Hamas, in particular with regard to the dissemination and amplification of illegal content and disinformation.” See European Commission Press Release, *Commission Sends Request for Information to Meta Under the Digital Services Act*, PUBAFFAIRS BRUXELLES (Oct. 19, 2023), <https://www.pubaffairsbruxelles.eu/eu-institution-news/commission-sends-request-for-information-to-meta-under-the-digital-services-act/> [perma.cc/4W29-S739].

⁷⁴ Cristina Caffarra & Fiona Scott Morton, *How Will the Digital Markets Act Regulate Big Tech*, PROMARKET (Jan. 11, 2021), <https://www.promarket.org/2021/01/11/digital-markets-act-obligations-big-tech-uk-dmu/> [perma.cc/YP5Q-4WX6]; Alexandre de Street et. al, *Enforcing the Digital Markets Act: Enforcing the Digital Markets Act: Institutional Choices, Compliance, and Antitrust*, (Jan. 5, 2023), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4314848 [perma.cc/5LE8-YSET].

easily move their business from a service with lower quality to one with higher quality. Interoperability will allow rival apps and app stores to compete with gatekeeper products on a level playing field, providing consumers with more options. Advertising transparency will allow all parties to more clearly observe what consumers experience in ad markets.

[40] There is no regulator for digital safety in the United States; indeed, Elon Musk seems to be both crafting national policy on digital regulation and running one of the major platforms that would be affected. Naturally, he champions complete deregulation, regardless of harm to users. In the United States at present, the only way for platforms that cause harm to face any accountability is lawsuits alleging violations of existing laws from private plaintiffs, state attorneys general, and school districts. These private and public plaintiffs accuse platforms of violating state and federal consumer protection law, competition law, privacy law, and common law torts.⁷⁵ These efforts appear to be gaining momentum: in October 2023, thirty-four states sued Meta for targeting its addictive products to children and teenagers. The following month, a Judge in the Northern District of California allowed plaintiffs' negligence claims against defendants including Facebook, Alphabet, Meta, TikTok, and YouTube to proceed. The claims noted the platforms' lack of parental control, failure to label filtered content, convoluted processes making it challenging for users to delete their accounts, failure to provide providing protocols for blocking and reporting predatory accounts.⁷⁶

⁷⁵ See, e.g., Complaint for Injunctive Relief & Other Relief, *Arizona v. Meta Platforms, Inc.*, No. 4:23-cv-05448 (N.D. Cal. filed Oct. 24, 2023).

⁷⁶ Order re: Motion to Dismiss at 14, *In re Social Media Adolescent Addiction Personal Injury Products Liability Litig.*, MDL No. 3047, [https://cand.uscourts.gov/in-re-social-media-adolescent-addiction-personal-injury-products-liability-litigation-mdl-no-3047/\[perma.cc/G5GM-WY4J\]](https://cand.uscourts.gov/in-re-social-media-adolescent-addiction-personal-injury-products-liability-litigation-mdl-no-3047/[perma.cc/G5GM-WY4J]).

[41] These cases suggest a potential—indeed, perhaps the only potential—for addressing the safety hazards caused by social media platforms in the U.S. But litigation has obvious drawbacks, because it is by definition *post facto* and, by necessity, narrowly focused on product design. Though there has been apparent bipartisan interest in legislative solutions, based on the strange bedfellows created by fears of harm to children,⁷⁷ policymakers are having trouble deciding on how congress can regulate without causing the Supreme Court to decide the resulting law has run afoul of Section 230 or the First Amendment. In a pair of cases brought by NetChoice against Texas and Florida, the Supreme Court recently remanded to the states for further factual development the question of whether state laws that seek to control platforms’ content moderation policies and design—notably, not to increase safety, but for the purported purpose of increasing a diversity of voices on the internet—violate the First Amendment. The Supreme Court seemed to suggest in its opinion that content moderation algorithms could be considered speech.⁷⁸ This creates a conundrum: If platforms may be sued by consumers who were harmed by dangerous social media, and at the same time the state prohibits platforms from making their services safer by forbidding government rules that impact content moderation, how will the platforms continue to operate?

[42] Now the direction of the second Trump administration seems clear: digital platforms should not fact check, should not moderate, and should not limit any speech. Zuckerberg said that ending fact checking at Facebook was a response to “governments and legacy media” pushing “to censor more

⁷⁷ See Sabine Neschke, *Children’s Federal Online Safety and Privacy: A Tentative Path for Congress*, BIPARTISAN POL’Y CTR. (Aug. 9, 2023), <https://bipartisanpolicy.org/blog/childrens-federal-online-safety-privacy-tentative-path-for-congress/> [perma.cc/CLE6-AC39].

⁷⁸ *NetChoice v. Paxton*, Nos. 22-277 and 22-555 (U.S. July 1, 2024) (Barrett, J., concurring).

and more.⁷⁹ This, of course, benefits an administration built on (to give one example) revisionist propaganda about a televised violent attempted coup.⁸⁰ The platforms' eagerness to go along with this mission and elevate the fallacy of suppressed conservative speech is alarming but expected; it is the behavior one would predict from firms with monopoly power.

VI. CONCLUSION

[43] The European Parliament has recognized and addressed the tremendous asymmetry of information, resources, and the ability to study impacts of different policies between a platform and a regulator. The burden is on the platform itself to provide evidence to a regulator that its product is safe. This shift keeps the regulator away from interfering—either in reality or in appearance—with the platform's First Amendment rights. The platform is given the power to decide how it wants to achieve the regulator's quality and safety standards: with expensive human moderators, AI, its own content rules, a system of blocking certain users, or other choices.⁸¹

⁷⁹ Bruna Horvath et al., *Meta Is Ending Its Fact-Checking Program in Favor of a 'Community Notes' System Similar to X's*, NBC NEWS (Jan. 7, 2025, 10:54 AM), <https://www.nbcnews.com/tech/social-media/meta-ends-fact-checking-program-community-notes-x-rcna186468> [perma.cc/8XVK-VVRS].

⁸⁰ Charlie Warzel & Mike Caulfield, *The Internet Is Worse than a Brainwashing Machine*, ATL.: TECH. (Jan. 6, 2025), <https://www.theatlantic.com/technology/archive/2025/01/january-6-justification-machine/681215/> [perma.cc/35VF-PD6H].

⁸¹ Of course, it is impossible to sidestep First Amendment issues altogether. Last term, the Supreme Court ruled that government officials can be held liable for violating the First Amendment in some cases for blocking social media users (though, notably, this case implicated individual blocking decisions, not a platform's own algorithm or content moderation). See *Lindke v. Freed*, 601 U.S. 187 (2024) (per curiam); *O'Connor-Ratcliff v. Garnier*, 601 U.S. 205 (2024).

[44] Such an approach is badly needed in the United States. However, platforms and their elected allies control lawmaking and have a strong financial interest in continuing to harm consumers for profit, on the one hand, or in using the ability to lie at scale to stay in power, on the other. The platforms have characterized efforts to make products safer—even when originated by themselves—first, as holding back innovation, and second, as censorship. Regulated firms ordinarily oppose regulation on the ground that it will increase cost for consumers. Because consumers do not pay a monetary price for many digital services today, this argument is harder for platforms to adopt, which is perhaps why platforms are now cloaking the profit-maximizing move of ceasing all fact-checking as “promoting free speech.” They also employ the horse and buggy narrative: since there is no alternative digital platform, the consumer’s choices appear to be an unsafe product on one hand and no product on the other. The goal of regulation, of course, is to ensure that the benefits to consumers are higher than the costs; society will pay the higher costs but be better off with the outcome, just as they are with their safer cars. The key realization is that digital platforms are currently not without cost; what needs to change is the opacity of both the size of the cost to individuals and communities, and who bears it: the consumers or the platform. Right now, there is no hope of the platform bearing any of that cost, and the harm will continue to fall on consumers who are deluded into thinking that they get these products for free. Thoughtful regulation, which we see being adopted in other countries, is the only long-term solution.