



The Urgent Need to Tax Digital Advertising

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Overview

There is widespread agreement that social media has become a major social problem. The original hope was that Facebook, Google, Twitter, and similar products would help people connect and encourage more decentralized forms of human communication, such as sharing local news. What has happened instead is damaging and dangerous. Social media poses serious threats to mental health, with dangerous impacts on young people in particular.¹ Social media facilitates, and may itself encourage, political radicalization and all forms of extremism, including violence.² And the structure of

social media today serves as a major brake on more positive forms of technology development across the entire economy. Digital advertising-based ecosystems do not encourage paths of innovation that will help citizens, workers, or anyone outside a small techno-elite.

Banning social media would not work in any political system. But in the US and other industrial democracies, the policy consensus allows imposing excise taxes (“sin taxes”) on goods and services that are bad for our health or on corporate

¹ See [Acemoglu \(November 8, 2023\)](#) testimony at the US Senate Committee on Homeland Security and Government Affairs hearing on “The Philosophy of AI: Learning from History, Shaping Our Future” for more discussion. See also [The US Surgeon General’s Advisory \(2023\)](#) report on “Social Media and Youth Mental Health.”

² Recent research from [Bursztyn, Handel, Jimenez and Roth \(2023\)](#) suggests that a large share of active users are ultimately harmed by using social media platforms, illustrating a possible “product market trap,” where the fear of missing out traps users in an inefficient equilibrium where they would prefer the product not to exist.

actions that are considered deleterious to the economy.³

Thus, the best way forward is to impose a flat tax on digital advertising revenue, set at a high rate above some low threshold of revenues. This tax should be paid on digital ad revenues, not income (or profits), because it is too easy for these multinational companies to hide profits in low tax offshore jurisdictions.⁴ Obvious targets for this tax include media and tech behemoths like Google/YouTube (Alphabet), Facebook (Meta), Amazon, Snapchat (Snap), ByteDance (TikTok), and Twitter (now X). But smaller media organizations, including news outlets such as the New York Times, should also be discouraged from manipulating readers.

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To be very clear, this tax would only be paid on digital ad revenues; it should not be levied on subscription income or other revenues (e.g., pay-per-view). The over-reliance of social media companies on digital ad revenue has bolstered a business model that incentivizes grabbing and keeping people's attention at all costs. With the arrival of powerful Artificial Intelligence (AI) tools, tech and media companies have an obvious incentive to greatly increase the effort

³ For example, there is now an excise tax on the repurchase of stock by US corporations whose shares trade in "established securities markets" ([IRS, "Internal Revenue Bulletin," 2023-3](#)).

⁴ These "tax havens" with low effective corporate income tax rates, often at or below 5-10%, include Bahrain, Bermuda, Curacao, Ireland, Lebanon, Luxembourg, Macau, Malta, Panama, Puerto Rico,

they put into manipulating consumers. The goal of our proposed digital ad tax is to push all forms of media/communication away from an ad-based business model and toward subscriptions, where revenues are instead dependent on the sustained quality of content and user experience.⁵

What Went Wrong?

By 2017, Facebook was so popular in Myanmar that it came to be identified with the internet itself. Myanmar's military has long ruled the country with an iron fist and has often stoked ethnic hatred among the majority-Buddhist population. Hate speech against Rohingya Muslims, for example, is commonplace in government-controlled media, but Facebook became the chief medium for organizing what the United States would eventually call a genocide.

There is similar evidence regarding the spread of incendiary misinformation in Sri Lanka and India. And these problems of hate speech and misinformation are exactly paralleled by how Facebook has been used in the United States.

These problems are not some rough edges to be ironed out. They are part and parcel of the business model based on digital ads. If you want to monetize the information you collect from people by sending them ads, you need to make sure that they remain highly engaged for long periods of time on your platform. An excellent way of doing this is to promote

Singapore, Switzerland and others ([Tørsløv, Wier and Zucman, 2022](#); [Hines and Rice, 1994](#)).

⁵ Our proposal is similar to a digital ad tax designed by [Paul Romer \(May 17, 2021\)](#), but he is more concerned with market power and reducing the size of the largest platforms; our focus is on discouraging digital advertising per se.

emotionally charged material: hate speech, extremism, sensational news, and items that trigger jealousy, envy, outrage, and indignation. It's no wonder that social media has been a conduit of both mental health problems and misinformation.

In 2015 YouTube engaged a research team from its parent company's AI division, Google Brain, to improve the platform's algorithm. New algorithms then led to more pathways for users to become radicalized—while, of course, spending more time on the platform. One of Google Brain's researchers boasted in an AI conference that this approach was successfully altering user behavior: "We can really lead the users towards a different state, versus recommending content that is familiar."⁶ This was ideal for Google's ability to make money from digital ads. Unfortunately, it was also ideal for fringe groups trying to radicalize people.

Twitter was no different. As the favorite communication medium of former president Trump, it became an important tool for communication between right-wingers (and separately among left-wingers as well). Trump's anti-Muslim tweets were widely disseminated at that time, and researchers later found that these tweets caused an uptick in anti-Muslim and xenophobic posts on Twitter, in addition to a rise in actual hate crimes committed against Muslims.⁷

A standard approach by economists and regulators when confronted by an industry dominated by a few incumbents, such as social media and online search, is

to call for more competition. All else equal, monopolies are bad and competition is good. But competition based on the same business model will not address our current ills. If we break up Meta into Facebook, WhatsApp, and Instagram, and these companies all keep the same business model, they will continue to have similar effects on mental health, misinformation, and extremism.

The Addiction Machine Distorts Innovation

The rapid development of generative AI will only increase the profitability of individualized digital ads. The latest wave of AI technology will enable myriad new ways of creating outrage, indignation, and strong engagement. It will empower companies that seek to prey on young minds, even if this triggers self-harm. Both the digital ad-based business model and its pernicious effects will intensify.

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At a recent Senate hearing, Mark Zuckerberg (CEO and largest shareholder of Meta) was excoriated by parents whose children had been severely harmed by Facebook and other social media.⁸ There is, however, no policy response on the horizon. Hoping that Meta and other platforms will become more responsible in the future is nothing more than wishful thinking.

⁶ [Chen \(July 31, 2019\), "How YouTube's algorithms to keep us watching are helping to radicalise viewers." The New Statesman.](#)

⁷ Müller and Schwarz (2023). "[From Hashtag to Hate Crime: Twitter and Antiminority Sentiment.](#)"

American Economic Journal: Applied Economics, 15(3): 270–312.

⁸ [US Senate Committee on the Judiciary \(January 31, 2024\). "Big Tech and the Online Child Sexual Exploitation Crisis."](#)

This is not just a problem of social media. For the economy as a whole, we are at a crossroads. We need to make sure that investments and technological progress move in a socially desirable direction. This direction should include developing AI tools to help workers, including those without a college degree, become more productive. This is essential to prevent the huge inequalities that have already emerged in the United States, and many other industrialized nations, from becoming even bigger. The next generation of technology must include new communication tools that provide more reliable information and better ways of encouraging effective political participation for citizens—with less scope for manipulation, misinformation, and political apathy.

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But where will these new, better technologies come from? Not from business as usual in the tech industry. A change in the direction of technological change is much less likely to happen when a few tech firms dominate. The current portfolio of innovations in the US and around the world is unbalanced, with excessive prioritization on automation (replacing people with machines), enhanced surveillance (watching humans in their every action), and ways to intensify many forms of human addiction (irrespective of the consequences).

⁹ See [US Department of Health and Human Services 2014 report, “The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General,”](#) for historical perspective. Today, just over 11 percent of US adults smoke

A different trajectory of technology is also unlikely when the priority of tech companies is to collect and monetize data. Boundless and permissionless data collection is symbiotic with sidelining humans in productive activities and signal jamming in politics. Massive amounts of data in the hands of a few actors, be they governments or platforms, is inimical to democracy. You might think that it is much better for data to be controlled by the US tech giants than the Chinese Communist Party. But this is true only up to a degree. If private companies are also using their control over data to manipulate you, the situation is not much better. Nor is it more conducive to the emergence of different technological paradigms.

Redirecting technology need not involve blocking AI or banning data collection; it can instead encourage the development of technologies that help people rather than just trying to make them angry. To move in this direction, an essential first step is to move media firms of all kinds away from reliance on digital advertising. The market will not move in this direction of its own accord. And no amount of jawboning will have the slightest impact.

We are locked into a bad equilibrium, just as we were when 45 percent of adult Americans were addicted to smoking. That awful peak likely occurred in the 1960s and it took decades to push people away from smoking.⁹

It is time to impose a serious tax on digital advertising.

cigarettes, but more than 16 million Americans still live with a smoking-related disease ([American Lung Association, “State of Tobacco Control 2024,” Key Findings.](#))

A Tax on Digital Advertising

We propose a significant digital advertising tax to encourage alternative business models, such as those based on subscription, instead of the currently prevailing model that largely relies on individualized, targeted digital advertising. Some companies, such as YouTube, have taken some (albeit halfhearted) steps in that direction. But currently, without a digital ad tax, a subscription-based system is not pursued as a profitable alternative.

Advertising in general has elements of an “arms race.” Although some advertisements introduce consumers to new brands and products, expanding their choices, many ads simply create noise for consumers, attempting to make their products seem more appealing than the competition.

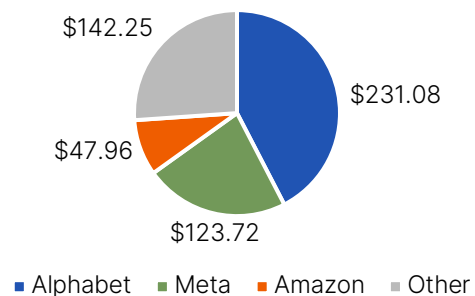
For these sorts of arms races, when costs decline or potential impact increases, wastefulness often follows. Digital advertising contributes by individualizing ads and increasing their impact while also reducing businesses’ advertising costs. This bolsters the economic case for a digital advertisement tax.

The point of such taxes is not to raise revenues or have a small influence on the volume of advertisement, but to fundamentally alter the business model of online platforms.

Setting the Digital Ad Tax Rate

According to the latest available numbers, in 2023 the global digital advertising universe generated about \$550 billion in revenue, and this will likely reach closer to \$600 billion in 2024.¹⁰ Of the total revenue expected in 2024, roughly 42% is expected to go to Alphabet, 23% to Meta, and 9% to Amazon. Of overall business revenues for the “big three,” about half comes from digital ads, but this average number hides some significant variation. For Meta, digital ads comprise over 95% of worldwide revenue (\$138 billion expected for 2024), for Alphabet this share is around 77% (\$256 billion), and for Amazon it is under 10% (\$53 billion). TikTok is also coming up fast, with annual ad revenue in the US estimated near \$10 billion and global revenue at least twice as much.¹¹

Figure 1: 2023 Digital Ad Revenue (billions)



Source: Otto (May 17, 2023)

¹⁰ Figures from [Otto \(May 17, 2023\)](#). “Global Digital Advertising Revenues—A Look at the Big Three: Alphabet (GOOGL), Meta Platforms (META), Amazon.com (AMZN).”

¹¹ On the global rise of TikTok, see [Carroll \(August 24, 2023\)](#), “Global advertising spend forecast to surpass \$1trn in 2024.” For US estimates of TikTok revenue, see [Oberlo \(2023\)](#), “TikTok US Revenue (2021–2025).”

We do not know how much of this revenue is generated by individualized ads, but the industry chatter suggests that it is a high proportion. With the growing use of AI tools, such ads (tracking your data, tailoring to your responses, pulling together information about you from disparate sources) are likely to become the largest part of digital ad revenue.

Paul Romer has proposed a marginal rate of zero for digital ad revenue under \$5 billion, based on his view that it is enough for large digital ad-based companies to break up.¹² In our view, it is essential to change the playing field entirely, so that all companies pursue subscription models, or other sources of revenue, rather than continuing to expand the stranglehold of digital ads.¹³

Romer's plan includes rate increases in \$5–10 billion increments and would apply only to digital ad revenue in the United States (until we can get agreement on a global tax). In his scheme, based on 2021 numbers, Facebook and Google would have marginal tax rates around 60% and an average tax rate in the range of 30–40%, while the tax on Amazon would be considerably lower.

In contrast to this, we recommend a flat tax of 50% that starts when annual digital ad revenue crosses \$500 million. The point of this tax is to encourage these resourceful companies—full of smart, creative people—to switch to subscription or other business models that are not based on keeping people addicted and sustaining intense emotional responses. But it is not enough to impose a meaningful tax on large

platforms. Smaller social media companies can also create the same damage. Our low threshold of \$500 million is set with the goal of reducing the cost of dealing with small companies while still preventing unintended negative effects on new entrants.

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In its first instance, our digital tax would apply to revenue generated in the US. But every effort should be made to encourage the G7 industrial economies and other democracies to move in the same direction. As this tax would fall mostly on US companies (plus TikTok), we expect countries around the world to be even more willing to fight dangerous additions fueled by US corporations. There are not many countries that insist on low taxes for cigarettes and other consumer-damaging products. And there are not many places where responsible officials fail to understand how social media, in its current configuration, undermines mental health and contributes to extremism.

Broader Benefits from Digital Ad Taxes

In addition to reducing unhealthy addiction, addressing mental health issues, and making it harder to foment extremism online, a sufficiently high digital ad tax rate would have another major positive impact. The big tech

subscription service with expanded content, as does Substack, that business model would not be subject to the tax we propose.

¹² See, again, [Paul Romer \(May 17, 2021\), "Taxing Digital Advertising."](#)

¹³ For example, if a company offers a limited array of ad-free content alongside a premium

companies have essentially monopolized the technology needed for search, recommendations, and digital advertising technology.¹⁴ Encouraging new business models, in our view, is key to stimulating innovation and allowing good ideas to scale-up. However, the big tech companies are so powerful that they can essentially suppress (through acquisition or other methods) anything that doesn't fit their view of the world.

As AI spreads throughout our economy, we quickly need a diverse set of responses, including new ways to generate tasks that require human expertise and for which people get paid decent money. Allowing one company (or two, or even three) to control our global AI future will limit our options, and likely set us down another narrow path of technology choices which, like social media itself, will prove regrettable and difficult to change ex post.

Digital ads are an obvious way to build an AI-powered influencer platform. For example, Microsoft (working with OpenAI) could easily now strengthen its position in the search market using generative AI. Alternatively, Microsoft executives may choose to bring new forms of recommendations (and manipulation) into the gaming world, where they have a strong position after the acquisition of Activision Blizzard. Placing a steep tax on digital ads will give dominant tech companies a strong incentive to develop other business models that are more likely to enable broader forms of innovation.

In *Power and Progress*, we argue that AI can be developed in a way that is complementary to all people, including

those who do not have a college degree. The current monoculture in search and social media is a barrier against such diverse forms of innovations, and this will likely impede progress on the specifics of human-complementary AI.

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Society and its gatekeepers (such as media and other opinion leaders) need to stop being mesmerized by tech billionaires and their agenda. Debates on new technology ought to center not just on the brilliance of new products and algorithms but also on whether they are working for or against most people. Whether digital technologies should be used for automating work and empowering large companies and nondemocratic governments must not be the sole decision of a handful of entrepreneurs and engineers. You do not need to be an AI expert to have a say about the direction of "progress" and the future of our society that will be forged by these technologies. And you do not need to be a venture capitalist to hold tech entrepreneurs and engineers accountable for what their inventions do.

Digital technologies can complement humans by improving the productivity of workers in their current jobs, by creating new tasks with the help of machine intelligence, by augmenting human capabilities across education levels, by providing better, more usable information

¹⁴ The [Department of Justice has brought several cases against Google](#) along these lines.

for human decisions, and by building new platforms that bring together people with different skills and needs.

We urgently need more pro-human AI ideas and products to come to market. A major step in the right direction would involve imposing a high tax on digital ad revenues, with the explicit and

transparent goal of strongly discouraging the current, massively damaging business model of “attention above all” and “boundless data collection.”

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