Regulating Big Tech through digital disclosures

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Regulating Big Tech through digital disclosures

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1. You can't regulate what you don't know

Alphabet, Amazon, Apple, Meta Platforms (formerly Facebook) and Microsoft — often known as 'Big Tech' — are today five of the six largest companies in the United States (US) and world by market capitalisation. These firms have become systemically important to our economy and have come under increasing scrutiny from antitrust authorities in the European Union (EU), US, and other jurisdictions due to the considerable market power that they wield as gatekeepers to their business ecosystems. Policymakers, investors, and antitrust investigations, however, have all been hobbled by a disclosure regime that has not kept up with either the internet giants' novel multi-sided digital platform business model or their relentless product diversification.

Although the EU Digital Markets Act (DMA) and Digital Services Act (DSA) require some limited additional disclosures by firms deemed to be gatekeepers or `very large platforms', they do not fundamentally change what information these firms have to make public on an annual basis. Public disclosures are not seen as a systemically important tool for disseminating knowledge about Big Tech platforms and enhancing oversight. In the DMA and DSA, disclosures are largely done by platforms on a case-by-case basis – when a user, business, advertiser, or publisher requests it. This is generally in the context of advertising markets, user data portability, or third-party businesses using a platform and having access to its data.

The current disclosures framework for public companies — the annual 10-K financial report in the U.S. and related IFRS-governed filings in the European Union – was designed for industrial economies based primarily on physical assets and in-person consumption. By contrast, today's technology companies derive their value from intangible digital marketplaces and platforms. Since technology shares account for 27.3% of total US market capitalization[2] – roughly equivalent to

[1] We would like to thank Fausto Gernone for valuable research and editing assistance. This policy brief draws on Mazzucato, M., Strauss, I., O'Reilly, T. and Ryan-Collins, J. (2023). "Regulating Big Tech: the role of enhanced disclosures". Oxford Review of Economic Policy, 39 (1). This work is sponsored by the Omidyar Network.

[2] Vanguard. 2023. VTI-Vanguard Total Stock Market ETF. Available at: https://investor.vanguard.com/investment-products/etfs/profile/vti#portfolio (accessed 10 May, 2023).

materials, energy, utilities, and industrials combined — the failure to update disclosure regulations for these radically different businesses is a glaring omission.

As a result, regulators and the public don't know how Meta 'monetizes' (i.e., converts users' attention into money) WhatsApp's two billion plus monthly users[3]; what Google does with the information it has on Gmail's 1.5 billion users; the profit margin of Apple's App Store[4]; or the fees Amazon extracts from its suppliers. This greatly curtails the gaze of regulators, the readiness of competitors to respond to market forces and enter highly profitable new industries, and the ability of investors to allocate capital efficiently through the stock market.

The Big Tech issues receiving regulatory scrutiny today stem from slivers of information available to policy-makers from whistleblowers, protracted court cases, or interest groups. To change the status quo, disclosure requirements should cover all sides of Big Tech's multi-sided platforms on a product-by-product basis: the revenue generating sides, any free (or subsidised) user sides, as well as the monetization process that connects them. This involves going beyond profit/loss reporting to include non-price operating disclosures that reveal material risks to investors and regulators.

Given the systemic importance of Big Tech to the modern economy, it's time to update mandatory disclosures for internet gatekeepers. This policy brief sets out the latest thinking from UCL's Institute for Innovation and Public Purpose on how to restructure required public company financial reporting for this novel industry sector. We explain two major obstacles to proper disclosures and public oversight of dominant digital platforms and make recommendations to fix them.

This brief is organised as follows. First, we show how Big Tech firms operate multi-sided platforms in which the 'free' user side is largely exempt from disclosures, since the user side is often 'monetized' only indirectly through advertising (Section 2). Second, we show that Big Tech firms have become closer to sprawling conglomerates[5], overseeing dozens of multibillion dollar products and services, each of which may wield considerable market power globally but with scant disaggregated product-by-product financial disclosures (Section 3). As a result, the financial and operating information used by Big Tech internally to allocate resources and assess product performance is not disclosed externally (Section 4). We recommend annual public reporting requirements for dominant digital platforms that cover their internally used operating metrics and financial results, disaggregated by product line and platform side (Section 5). Establishing a dedicated *Office of Digital Platforms* in securities regulators to oversee these filings should follow.[6] Our recommendations are aimed at securities regulators, who decide what information public firms need to file, and at governments tasked with enhancing oversight of large digital platforms through

[3] Duffy, C. (2021) Facebook lifts the lid on how it's making money from WhatsApp. CNN. Available at: https://www.cnn.com/2021/04/28/tech/facebook-whatsapp-earnings/index.html

[4] Estimating in 'Epic Games, Inc. v. Apple Inc.' (9 October 2021) United States District Court, Northern District of California.

[5] Mohamed, T. (2019, updated on 28 December 2021) 'Google's founders visited Warren Buffett — and decided to model Alphabet on Berkshire Hathaway', Markets Insider. Available at: https://markets.businessinsider.com/news/stocks/google-founders-modeled-alphabet-warren-buffett-berkshire-hathaway-2019-12-1028737463

[6] I In a similar vein, see the new Office of Crypto Assets and the Office of Industrial Applications and Services. Breheny, B., Yaffe, J. and Fox, R. (2023) 'The 2023 Reporting Season: Recent SEC Guidance', The Harvard Law School Forum on Corporate Governance, 3 March. Available at: https://corpgov.law.harvard.edu/2023/03/03/the-2023-reporting-season-recent-sec-guidance/ (Accessed: 24 March 2023).

legislation. The need for enhanced disclosures by Big Tech is only heightened by the rise of 'AI' and generative language models like ChatGPT.[7]

2. The digital economy's business model

Big Tech companies have unique business models.[8] They oversee multi-sided markets and platforms that aggregate[9] the supply of everything digital, from websites (Google) to video content (YouTube), product suppliers (Amazon), and Apps (App Stores). This aggregation sometimes sees the platform intermediate transactions between a buyer and a seller, taking a cut of the transaction as its business model (as with Uber, Airbnb, or App Stores). In other instances, aggregators make money from users only indirectly, monetizing their attention by showing advertising, such as in Google Search, YouTube, social media applications like Facebook and Twitter, or Amazon's marketplace. In addition to users, there may be an ecosystem of suppliers (such as Uber drivers, app developers, websites to be searched, or social media influencers and content suppliers) whose compensation, whether in money or in traffic, must be disclosed in order to truly understand these businesses.

But Big Tech companies only disclose what is happening on the 'money' side of the market (e.g., advertising sales) – ignoring operating disclosures on users or suppliers, their monetization process, and any services that may not directly generate revenue. This is a huge gap, since management decisions made on the user side determine not only consumer welfare but also financial results on the money side of the platform.

User metrics underpin the platform's financial prospects by generating the network effects that help draw in other users and lock-in suppliers. Users (and their data) are key to the platform's monetization opportunities. Investors agree. They allocate capital by buying and selling shares in subscription-based platforms like Netflix[10] based on their quarterly user growth numbers, rather than just on official quarterly earnings or revenue growth. But such figures are released at firms' discretion in earnings calls on an ad hoc basis. The U.S. Securities and Exchange Commission (SEC) has no rules on such operating metrics. It is within this permissive context that Twitter's unique monthly active users (MAU) operating measure came under fire from Elon Musk for being exaggerated.[11]

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[7] O'Reilly, T. (2023) 'You Can't Regulate What You Don't Understand', April 2023. Online: https://www.oreilly.com/content/you-cant-regulate-what-you-dont-understand-2/

[8] For a review, see: Hovenkamp, H. (2021) 'Antitrust and Platform Monopoly'. Rochester, NY. Available at: https://doi.org/10.2139/ssrn.3639142. For rents in digital platforms more broadly see: Mazzucato, M., Gouzoulis, G., and Ryan-Collins, J. (2023). "The good, the bad and the grey areas: mapping modern economic rents". Cambridge Journal of Economics. Forthcoming.

[9] Thompson, B. (2019) A Framework for Regulating Competition on the Internet, Stratechery by Ben Thompson. Available at: https://stratechery.com/2019/a-framework-for-regulating-competition-on-the-internet/

[10] Financial Times (2022) 'Netflix warning on subscriber growth sends stock plummeting', 21 January. Online: https://www.ft.com/content/fea461d6-e3e0-4016-a641-fca87e59d019

[11] Posard, M.N. (2022) Elon Musk May Have a Point About Bots on Twitter. Available at: https://www.rand.org/blog/2022/09/elon-musk-may-have-a-point-about-bots-on-twitter.html

User numbers *per-se* are only the most obvious operating statistics that firms use internally to evaluate and guide product success. In social media, likes, clicks, and engagement rate (the percentage of people who see a post, who like, click on it, or comment on it) are used to give posts higher prominence. Facebook even measures how long people spend reading a post that they click on, and whether they like it before or after they read it.[12] Such information is not disclosed despite much of it being of material significance to investors' ability to gauge the financial prospects of the platform.

Operating metrics also shape the design of the platform's algorithms.[13] And it is the platform's algorithmically driven attention allocations that determine "who gets what and why".[14] With sufficient market power, a platform can shape its algorithms to show users more advertising or addictive content to generate more profits for itself, for example. Or it can instead show more 'organic' (most relevant, unpaid) results, allocating more value to its third-party ecosystem. User behaviour and attention patterns are, therefore, vital internal operating metrics that the platforms use to manage their businesses.

Monetization of users is really monetization of a platform's **third-party firms or advertisers**, who pay the platform for access and visibility to those users. Disclosures of operational metrics relating to Big Tech's ecosystem of third-party firms are similarly lacking. YouTube, for example, doesn't disclose total payments made to its content creators, making the product's profitability impossible to calculate. Amazon does not disclose the Gross Merchandise Volume from its third-party marketplace, making it impossible to determine the exact percentage of sales it takes from its merchants in fees (including via its fast-growing advertising business).[15]

Big Tech's lack of operational disclosures on its 'free' products is particularly glaring when these free products dominate global markets and underpin the financial viability of their businesses. Alphabet's 10-K discloses aggregate advertising revenue data – but provides little in the way of either operating metrics or revenue for the free products (Search, YouTube, Android, Chrome, Maps, and Gmail) that ensure that billions of users are available for ads-based monetization. The freedom to report only the aggregated revenue from advertising makes it easy for the internet giants to conceal the enormous market power of their multi-billion user products.

In summary, multi-sided platforms require multi-sided disclosures, to include information on the 'free' platform side, as well as the inter-relationship between all sides of the platform through the monetization process. The next section explores the need for disaggregated disclosures by Big Tech on a product-by-product basis.

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[12] Oremus, Will. 2016. 'Who Controls Your Facebook Feed'. Slate. Online: https://www.slate.com/articles/technology/cover_story/2016/01/how_facebook_s_news_feed_algorithm_works.html

[13] For example, Facebook VP Andrew Bosworth detailed how the "Like" button was adopted only when user testing showed that it did not reduce the number of comments.

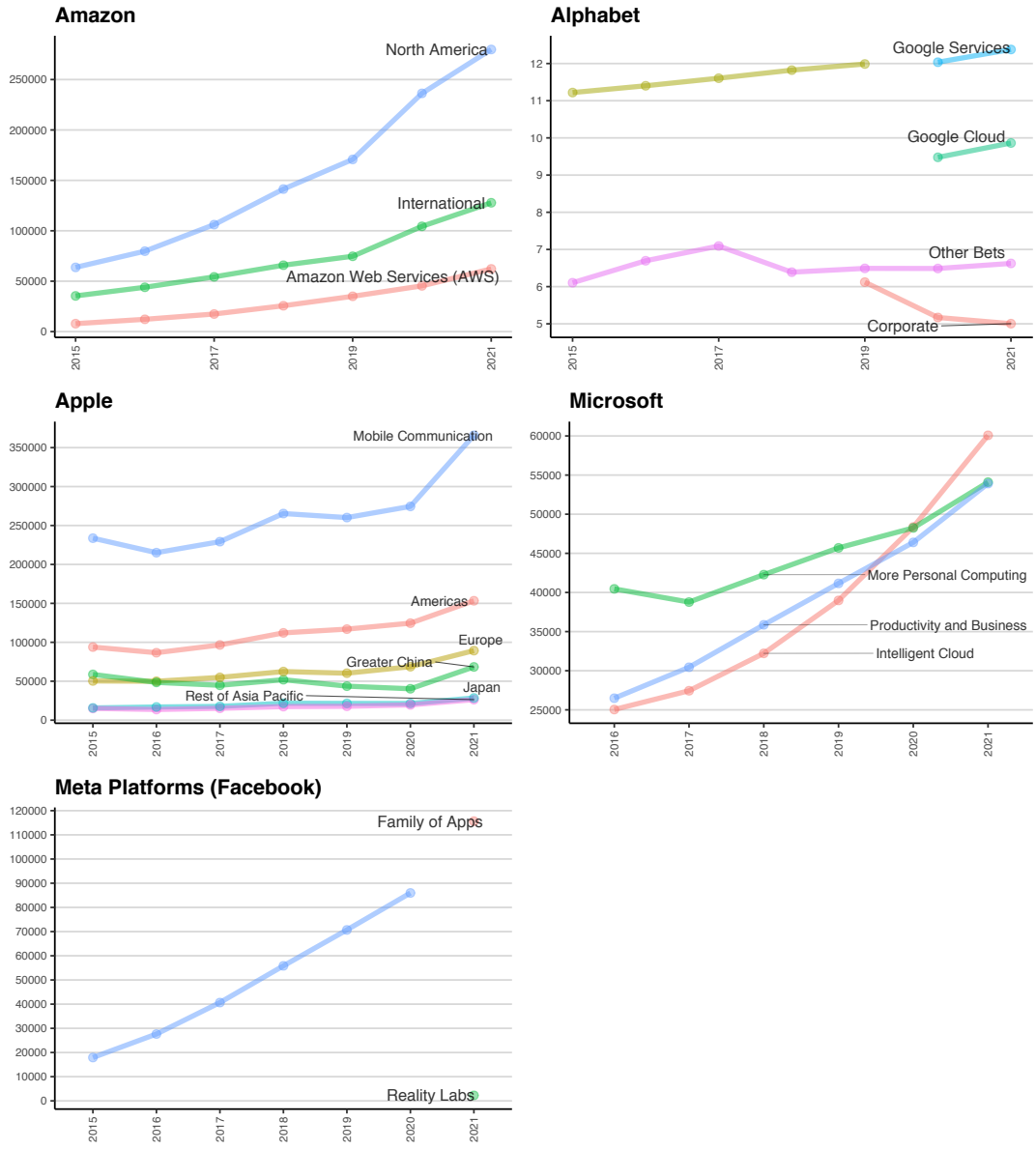
[14] Roth, A.E. (2015) Who Gets What - and Why: The New Economics of Matchmaking and Market Design - From Birth to Death and Along the Way. HarperCollins.

[15] O'Reilly, T. (2021) Checking Jeff Bezos's Math, O'Reilly Media. Available at: https://www.oreilly.com/radar/checking-jeff-bezoss-math/

3. Big Tech's diversification

The extent of Big Tech's rapid diversification is almost completely absent from their disclosures (Figure 1). Today, Big Tech leads in mobile payments; cloud software services; social networks and chats; virtual home assistants; entertainment; gaming; retail; music; headphones; delivery networks; and fitness. But you wouldn't think so from looking at their financial disclosures (Figure 1), which treat their businesses largely as a single set of homogenous business operations.

Figure 1. Big Tech's segment disclosures don't reveal their diversification



Source: Compustat Segments

Buying up companies has been central to achieving this diversification. However, the companies that Big Tech have acquired are not reported as separate operating segments, including Facebook's WhatsApp and Instagram, Alphabet's YouTube (despite recent changes), Amazon's

Twitch, and Microsoft's LinkedIn (with only minimal reporting provided). Big Tech provides only highly aggregated financial disclosures because they can get away with it.

The key set of accounting and disclosure regulations for public companies governing diversified conglomerates are '**segment reporting rules**'. These regulations were (somewhat ironically) initially passed in the U.S. in the 1960s and 1970s with the aim of reducing concentration in the economy – instead they have facilitated the opposite.[16] The accounting profession has long been trying to reform segment reporting rules, with the FASB acknowledging widespread dissatisfaction with them from practitioners and investors.[17]

In theory, segment reporting rules say that companies are required to report as a separate business segment, with its own financials, any product line that represents 10% or more of their combined segment profit/loss, revenue, or assets. In practice, segment reporting rules allow firms to disaggregate their financials largely as they see fit, since they allow managers to define operating segments however they want, as long as it corresponds to some plausible internal decision making structure. **More specifically, there are three problems with segment reporting:**

1. Segment reporting rules provide companies with too much latitude in how they disaggregate their financials.

For Apple, this means releasing financials by (highly aggregated) geographical segments rather than by product (Figure 1). This allows Apple to keep the App Store's financials hidden from public view – even though it probably already accounts for more than 10% of Apple's total revenue and profits.[18] This tactic helped Apple delay the App Store's "extraordinarily high profit margins"[19] from coming to light. In fact, when Epic Games finally took Apple to court over the App Store's business practises, Apple CEO Tim Cook claimed that the App Store's true profit margin was unknowable because "we don't have a separate profit and loss statement for [it]".[20] This argument, based on segment reporting, was dismissed by the presiding judge, with Apple's internal document's showing that the App Store's operating margin was separately calculable and exceeded 70%.

Financial disclosures disaggregated by geography are just as important as disclosures on a product-by-product basis given how globally integrated Big Tech are. Big Tech receive the majority

[16] See: Pacter, P .1993. 'FASB Reexamines Disaggregated Disclosures: Defining the Issues and Alternative Directions', Journal of Corporate Accounting & Finance, 1993, 4(3), 283-293.

[17] See: IFRS - Investor Update July 2019. Available at: https://www.ifrs.org/content/dam/ifrs/meetings/2019/july/joint-iasb-fasb/ap27-segments.pdf

[18] See: Nicas, J. (2020) 'How Apple's 30% App Store Cut Became a Boon and a Headache', The New York Times, 14 August. Available at: https://www.nytimes.com/2020/08/14/technology/apple-app-store-epic-games-fortnite.html

[19] 'Epic Games, Inc. v. Apple Inc.' (9 October 2021) United States District Court, Northern District of California.

[20] Goldsmith, J. (2021) '"I Have An iPhone, Sir, I Hope It Still Works After Today," Epic Games Lawyer Jokes While Grilling Apple CEO Tim Cook', Deadline, 21 May. Available at: https://deadline.com/2021/05/tim-cook-apple-iphone-app-store-epic-games-fortnite-trial-12347621 81/

of their revenue from outside the U.S.[21] But geographical disclosures are largely uninformative if not also undertaken on a product by product basis (e.g., App Store sales by country).

2. Segment reporting rules are not enforced.

Segment reporting rules are not just too permissive by nature, they also are simply not enforced by regulators. This has helped Big Tech entrench their platform market power. Our research[22] shows, for the first time, that Amazon hid from public view the financials of **Amazon Web Services** (AWS), its cloud computing business, for longer than permitted by segment reporting regulations. This helped extend its head start over competitors in the nascent sector for years to come. When the financial size of AWS was finally disclosed to the world in Amazon's 2015 10-K, investors were shocked. Tech analyst Ben Thompson facetiously called it the "one of the technology industry's biggest and most important IPOs"[23] (even though it was not an IPO but simply an operating segment of Amazon being newly disclosed), highlighting the scale of what had been concealed.

Similarly, for years **Alphabet** declined to provide any financial disclosures for YouTube (or its other products) to the SEC and investing public, despite repeated requests from the SEC and YouTube being the dominant video platform on the internet at the time.[24] Alphabet's 2020 10-K report notes that YouTube had almost $20 billion in annual ad revenue. This means that if YouTube were a standalone ads-only entity, it might be the world's fourth-largest seller of digital ads after its parent company Alphabet, Facebook, and Amazon. Even today, YouTube's disclosures are minimal, as it is not considered to be an independent segment.

3. Segment reporting rules don't scale with firm size.

Big Tech's uniqueness is partly its bigness combined with how diversified the underlying technologies allow them to become, creating considerable economies of scale and scope. Dozens of Big Tech's globally dominant products do not ostensibly meet the 10% reporting threshold of segment reporting (whereby the financials of an operating segment must be disclosed if it accounts for 10% or more of the company's combined segment revenue, profit/loss, or assets). Google Maps, for example, whose 2019 revenue was estimated by analysts at $3 billion annually and growing,[25] is almost as big as that of Garmin, the largest GPS device provider, and bigger than ESRI, the leading Geographic Information System provider. Maps is clearly a one of the largest products in this industry segment, yet Alphabet isn't required to disclose financials for Maps simply because its overall business is so big. An Apple product such as AirPods – with revenue likely

[21] This is confirmed by their vulnerability to fluctuations in exchange rates. For example, see: Otani, A. (2022) Tech Stocks Face New Blow as Strong Dollar Threatens Earnings, WSJ. Available at: https://www.wsj.com/articles/tech-stocks-face-new-blow-as-strong-dollar-threatens-earnings-11664837715

[22] Mazzucato, M. et al. supra note 1.

[23] Thompson, B. (2015) The AWS IPO, Stratechery by Ben Thompson. Available at: https://stratechery.com/2015/the-aws-ipo/

[24] Mazzucato, M. et al. supra note 1.

[25] Krouse, S. and McLaughlin, K. (2021). 'At Booming Google, Search Chief Gives More Love to Product Managers'. The Information Available at: https://www.theinformation.com/articles/at-booming-google-search-chief-gives-more-love-to-product-managers

exceeding Twitter and Snapchat combined[26] – doesn't have to be disclosed either, since it's less than 10% of Apple's gargantuan $365 billion annual revenue. This may help draw less attention to the anti-competitive design that leaves AirPods not pairing easily with non-Apple phones, which may in turn help increase sales of iPhones.

4. External disclosures should reflect internal market realities

The reporting systems we recommend have been already largely adopted *internally* by Big Tech, including figures disaggregated at the product-level and key operating metrics. Both competitors and the courts use non-price operating metrics at the product-level, such as monthly active users and time spent on platform, to assess platform market power, competitiveness, and market share. Little new information would have to be gathered by Big Tech to update the disclosure regime. The difference is that, at present, extensive independent effort and legislative backing is required to get this essential information.

In their everyday assessment of a multi-sided platform's performance, company managers, investors, competitors and industry observers all look at metrics regarding the company's ecosystem of suppliers. For example, in an unpublished interview with Tim O'Reilly, Vice President of Microsoft for Bing, Jordi Ribas explained how a key metric of performance used internally by his team is the "click share": the number of clicks a website receives from a search query divided by the estimated maximum number of clicks that it could have received. This helps Bing assess the relative amount of traffic that the platform sends to external websites and publishers.[27] According to Ribas, the metric is widely used at all levels of management of the search engine. Similarly, in his 2018 shareholder letter, Jeff Bezos disclosed that Amazon benchmarks the growth of its ecosystem of third-party sellers against its own ecommerce performance.[28] Yet, little information is provided about such operating metrics outside the company.

Algorithmic design centrally impacts operating metric targets. Before changing the company's algorithms, managers will evaluate the effects on metrics such as user engagement, time spent, and changes in ad revenue in order to ensure platform viability is not impaired. For example, Google used operating metrics on website visibility (attention allocations) and user click-through rate to motivate for asymmetrically rolling back its Panda algorithmic update, in order to boost the visibility of its own aggregator Shopping service ahead of its rivals.[29] Facebook targeted

[26] According to CNBC in 2020 AirPods might have generated $15 billion in revenue. In the same year Twitter and Snapchat respectively reported $3.72 billion and $2.5 in revenue. See: https://www.cnbc.com/2019/12/20/airpods-a-6-billion-business-for-apple-will-be-bigger-next-year.html?&qsearchterm=apple

[27] A click share of 20% means that one out of five people who looked at the link to a website actually clicked on it.

[28] Jeff Bezos. 2019. 2018 Letter to Shareholders. Available at: https://www.aboutamazon.com/news/company-news/2018-letter-to-shareholders

[29] See: Google v. Commission (Shopping). Case AT.39740 (2017).

a 20% gain in user time spent in Reels video consumption by making changes to its algorithms.[30] These are only two of many examples that highlight the importance of operating metrics in shaping Big Techs' business models.

We know from legal proceedings that user operating metrics are central to how digital platform companies assess their own product performance and competitiveness internally, including through metrics disaggregated on a geographical basis. The court accepted the FTC's argument in an initial hearing: "that Facebook's internal presentations assessing the performance of Facebook Blue and Instagram focus on time spent per month, MAUs, and DAUs. And Facebook relies on these same metrics to assess its rivals' competitive significance [citing a discussion on Snapchat]." The FTC notes that use of these operating metrics is not limited to Facebook:

> "Other firms that offer or have offered personal social networking services, including Snapchat and Google, have also used MAUs, DAUs, and time spent to gauge their own growth and the performance of others. For example, Snapchat's recent ordinary course documents compare the performance of Snapchat and Instagram by observing the firms' MAUs, DAUs, and time spent, among other metrics. Similarly, Google tracked the performance of both Orkut and Google+ using MAUs, DAUs, and time spent. When evaluating a potential acquisition of a personal social networking provider, Google also evaluated the target company's MAUs, DAUs, and time spent. Facebook itself relies on such commercial data sources to track the performance of Facebook Blue and Instagram. For example, multiple internal Facebook presentations cite ComScore as the source for metrics such as time spent, and Facebook has relied on ComScore statistics as inputs to prepare important materials for Mr. Zuckerberg."

Such user operating measures are used in legal proceedings and antitrust cases globally. In FTC v. Facebook (2021), the Court relied on measures such as MAUs and Daily Active Users (DAUs) to assess if Facebook may be a dominant social network. Similarly, the United Kingdom's Competition and Markets Authority (CMA), Germany's Federal Cartel Office (Bundeskartellamt or "BKartA"), and the Australian Competition and Consumer Commission ("ACCC") have all also relied on such user operating metrics to assess market share and dominance in social network markets. The ACCC said user market shares of a platform are important to assess since they reflect the way that a "network effect creates a significant barrier to entry and expansion".[31]

Similar operating metrics are used by Courts to assess market shares in other digital sectors, where consumers are not always charged a pecuniary price for the service. In 2004, the European Commission's merger case on Microsoft/Skype, in the online communication services market, used user market share by volume — rather than value — since "most of the consumer communications services are provided free of charge."[32] Similarly, in Ohio v. American

[30] See: Rodriguez, J.H. and S. (2023) 'Meta Embraces AI as Facebook, Instagram Help Drive a Rebound', Wall Street Journal. Available at: https://www.wsj.com/articles/meta-ai-facebook-instagram-reels-ad-targeting-11674829286

[31] Fed. Trade Comm'n v. Facebook Inc., 581 F. Supp. 3d 34 (D.D.C. 2022) pp. 67-68.

[32] Microsoft/Skype, European Commission. Case No COMP/M.6281 (2011).

Express Co., the Supreme Court calculated the market share of credit card companies based on transaction volume, not transaction revenues, in order to reflect how market participants themselves assess their relative dominance.[33] Operating metrics on user web traffic and click-through rates (attention allocations) underpinned market share calculations in the online web Search market in The European Commission's case against Google Shopping (2017).

Which of these operating metrics should Big Tech have to disclose in their annual public financial reports filed with securities regulators? Those that are used internally on a regular basis for decision making on products. External disclosures should be structured to best reflect internal business reality. We reject the argument of Damodaran that operating disclosures should be 'triggered'[34] only if used by the company for its public narrative to shareholders. Such an approach encourages fewer relevant public disclosures, not more.

5. Recommendations for reform

In this final section we recommend disclosure requirements, on a *product-by-product basis*, that cover all sides of Big Tech's multi-sided platforms: the revenue generating side, the user-side, the supplier side, as well as the monetization process that connects these sides. Practically, this involves going beyond profit/loss reporting to include non-price operating disclosures that reveal material risks to investors and regulators. The five sets of recommendations can initially be applied to *dominant* digital platforms, drawing on the EU's 'gatekeeper' designation from the Digital Markets Act – and eventually be extended to cover all publicly listed platform companies. These recommendations extend the New Brandeis School's[35] emphasis on non-price harms and sources of market power to multi-sided digital platform disclosures, with users on one-side and firms on the other co-creating value together through reinforcing network effects.

New non-price disclosure requirements by the U.S. and the EU covering sustainability measures (as in Environmental, Social, and Governance reporting)[36] show that even if something has long been 'material' to investors, a company has no obligation to disclose it until regulations specifically compel them to do so. The EU, for example, now mandates material disclosure in the field of environmental sustainability, meaning that all the relevant information related to environmental impact must be disclosed publicly to investors.[37] Similarly, 'material' impacts can and should include

[33] Ohio v. Am. Express Co., 138 S. Ct. 2274, 201 L. Ed. 2d 678 (2018).

[34] Damodaran, A. (2021) 'Musings on Markets: Triggered Disclosures: Escaping the Disclosure Dilemma', Musings on Markets, 19 October. Available at: https://aswathdamodaran.blogspot.com/2021/10/triggered-disclosures-escaping.html

[35] Khan, L. (2018). The New Brandeis Movement: America's antimonopoly debate. Journal of European Competition Law & Practice, 9(3), 131-132.

[36] See: Warren, Z. and Warren, Z. (2023) 'Upcoming SEC climate disclosure rules bring urgency to ESG data strategy planning', Reuters, 30 January. Available at: https://www.reuters.com/legal/legalindustry/upcoming-sec-climate-disclosure-rules-bring-urgency-esg-data-strategy-planning-2023-01-30/

[37] See: Appendix 2.6 'Double materiality conceptual guidelines for standard-setting' in EFRAG (2022) 'PTF-ESRS Batch 1 working papers – Cover note and next steps'.

essential non-price operating disclosures from the user side of a multi-sided platform, since they drive the financial results of a company.

We recommend:

1. **A "monetization narrative"**[38] that details how users and third-party firms are 'monetized' by the gatekeeper platform, including across products but within the same company's ecosystem. The role of each product for the firm's overall monetization strategy should be included, along with the use of user and supplier data within this strategy, and material risks to its continuation. This 'ecosystem' disclosure would also bring data disclosures to the fore and explain how data is used within the firm's business model. It may require Facebook, for example, to disclose what specific types of data it uses, from products internal and external to the firm, to monetize its users in different contexts. Or it may require Amazon to disclose the fees it levies on its merchants as part of its platform's monetization strategy. Narratives that outline key risks facing the company are already required in section 1a of the annual 10-K report public companies file with the SEC. This recommendation simply creates a new 'material' requirement for platforms to make these disclosures to investors given that they underpin many of the business risks facing the company.

2. **To cover the financial, price side(s), of the digital platform**: we recommend giving segment reporting some 'teeth', by ensuring that it is mandatory (rather than up to management's judgement), that it scales with firm size, and that it cannot ignore large product categories. Any line of business that contributes $5 billion or more to revenue or profits should be broken out for investors in granular financial detail – in line with several recommendations made by investors and the accounting profession.[39] This would require additional disclosures on only a few dozen globally dominant products and services which are currently hidden. Moreover, given the global nature of Big Tech, more geographical disaggregation is warranted — in addition to, rather than instead of, by product.

3. **At the non-price side(s) of the platform: we recommend disclosure of operating metrics** used internally by the firm on a regular basis to measure platform performance, covering users, third-party firms, or advertisers. This should provide further insights into the monetization narrative disclosed previously. Operating metrics drive a platform's financial performance, helping the public and regulators assess its future business prospects and present market shares. Operating metrics should eventually include who is using the product — not just in which geography, but which firms, suppliers, and users. This can pre-empt another Russian influence campaign, for example.[40]

[38] For example, this could be part of Part 1 of the 10-K.

[39] CFA Institute. (2008) 'Segment Disclosures: Investor Perspectives'. Available at: https://www.cfainstitute.org/en/research/survey-reports/segment-disclosures-survey-report

[40] See: Dwoskin, E. (2021) 'Russia is still the biggest player in disinformation, Facebook says', Washington Post, 26 May. Available at: https://www.washingtonpost.com/technology/2021/05/26/facebook-disinformation-russia-report/

Operating disclosures should also cover, where relevant, disclosures on a platform's user attention allocations, as were central to the European Commission's 2017 case against Google self-preferencing its shopping aggregation service in its Search results.[41] Such metrics could report user click-through rates on advertising vs. organic results; percentage of top 10 results that are organic vs. advertising; average user time spent on platform; and even the percentage of top placed results that are a platform's own products or services.

4. **Remove the "management discretion" rules underpinning segment reporting** that say companies can report financial results externally the way only their most senior decision makers see them. Instead, securities disclosures should require large companies in particular to use objective measures when deciding on which of their operating segments require disclosure, based purely on the product's size (of roughly $5 billion or more in revenue or profit) – rather than on whether management internally treats the product as a separate operating segment. Claiming that the CEO does not regularly review the operating segment's financials that are actually used to manage the business is a pretence employed by companies to avoid making material disclosures.

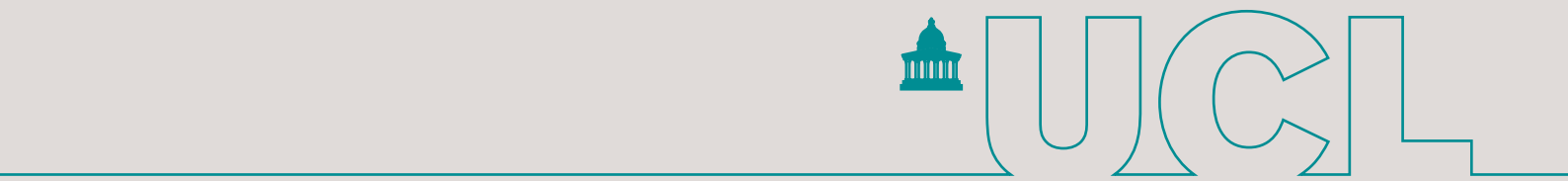
5. **The 'G' (governance) in ESG**. Companies around the world have signed up to ESG metrics, as a way to disclose their progress towards achieving goals around environmental and social concerns. The recommendations here have the potential to influence how the 'G' (governance) in ESG is measured for tech companies. We recommend that investors in companies ask for such disclosures as part of the way they monitor whether companies are serious about becoming accountable to metrics that capture the source and direction of value creation.

Practically, our recommendations would require the SEC in the U.S. to reform the annual 10-K – and quarterly 10-Q – disclosure obligations, governed largely by GAAP accounting conventions. In the EU it would require similar reforms be made to the quarterly and annual disclosures public companies file to national security regulators, overseen by the European Securities and Markets Authority (ESMA), governed by IFRS accounting conventions. Establishing a dedicated Office of Digital Platforms in securities regulators to oversee these filings should follow, just as the SEC in the U.S. has established an Office of Crypto Assets to oversee[42] specific disclosures in this area.

These recommendations are by no means comprehensive. However, improving transparency through disclosure requirements is a crucial first step to understanding digital power. It will help regulators build the dynamic capabilities required to keep up with the regulatory challenge, and provide the public with the relevant data to assess the industry dynamics of value creation and value capture.

[41] Google v. Commission (Shopping) supra note 29.

[42] Breheny, B., Yaffe, J. and Fox, R. (2023) supra note 6.



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