



Digital Davids, global Goliaths, and the Web3 sling



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Abstract The Web 2.0 digital economy, centered on dominant platforms, generates substantial opportunities for managers and entrepreneurs yet creates critical dependencies. Platform-dependent businesses engage in competitive actions—rivalrous, competitive-cooperative, and relational—vis-à-vis digital platforms to gain a fair share of economic value. While the (supposedly) trustworthy custodians of digital data have captured a disproportionate share of revenue and profits, Web3 promises to tilt the balance away from dominant platforms by providing mechanisms that replace centralized organizational trust with decentralized technological trust. Here, innovations such as blockchains and smart contracts complement antitrust laws and regulations in limiting platform power. Furthermore, this study suggests that end users, peers, and regulators may play an important role in helping businesses draw investors', users', and customers' attention away from Web 2.0 platforms. To effectively leverage *decentralized trust* as a novel aspect of competitive actions, business leaders must pursue Web3 technologies that are reliable, high-growth market segments that are credible, and ventures that are investable.

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1. The dominance of digital platforms

“We should worry much less about whether competition is perfect and worry much more whether there is competition at all.” – Nobel Laureate Friedrich Hayek (1948)

Perfect competition neither exists nor may be desirable. Rather, imperfect competition can be ubiquitous, thanks to entrepreneurial entry and activity (Econlib, 2013)—except in the digital economy, in which software-powered platforms sway trillions of dollars in global economic activity (Nicholson, 2020). Their centrality to business activity is evidenced in millions of businesses whose prospects largely rely on platforms (e.g., the Amazon.com marketplace, Apple's iOS, and

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Google Search). Broadly, *digital platforms* are defined as “a shared, common set of services and architecture that serves to host complementary offerings, including digital artifacts” (Nambisan, 2017, p. 1032). Powered by software technologies, these platforms have not only created new markets and industries but also penetrated and disrupted existing ones (Cusumano et al., 2019). While such platforms are situated within the broader context of the global internet and the billions of users connected to it, they have captured a disproportionate share of profits and economic power in the digital economy. For example, Apple’s profits from smartphones consistently represent over 65% of the industry’s profits, even though its market share, when measured in unit sales, remains near 15% (Counterpoint, 2021).

The concentrated power of such commercial digital platforms has come to define the second avatar of the internet, Web 2.0 (Barassi & Treré, 2012), in stark contrast to the first avatar, which was characterized by the openness of architecture, content, and protocols (O’Reilly, 2007). This difference has also influenced millions of platform-dependent businesses, whose prospects are tightly coupled to platforms’ policies and priorities (Cutolo & Kenney, 2021). At the heart of this dependence is digital data. By effectively owning and monetizing the data generated by billions of consumers and millions of enterprises, platforms have positioned themselves at the heart of the Web 2.0 economy. The rapid evolution of technologies such as AI has multiplied the economic value of data as a strategic resource (Hartmann & Henkel, 2020). Platforms can (1) better analyze the data they already own, (2) collect new data with greater frequency and granularity, and (3) optimize novel business models (e.g., freemium) to exploit this data as they compete globally.

In recognition of platform power and the resulting economic imbalance, this article explores how Web3—the next avatar of the internet—might fundamentally alter the nature of competition in the digital economy. First, I highlight the imperfection of competition and regulation in the Web 2.0 era. Second, via the lens of competitive dynamics, I illustrate that platform-dependent businesses engage primarily in three modes of competition: rivalrous, competitive-cooperative, and relational. Third, I investigate how a core principle of Web3—decentralized trust—can enable novel, competitive actions so platform-dependent businesses can leverage end users, peers, and regulators to win a fairer share of the economic value created. Finally, I use external

corporate venturing as a framework to present key implications of Web3 for business leaders.

1.1. Imperfect competition in the digital platform economy

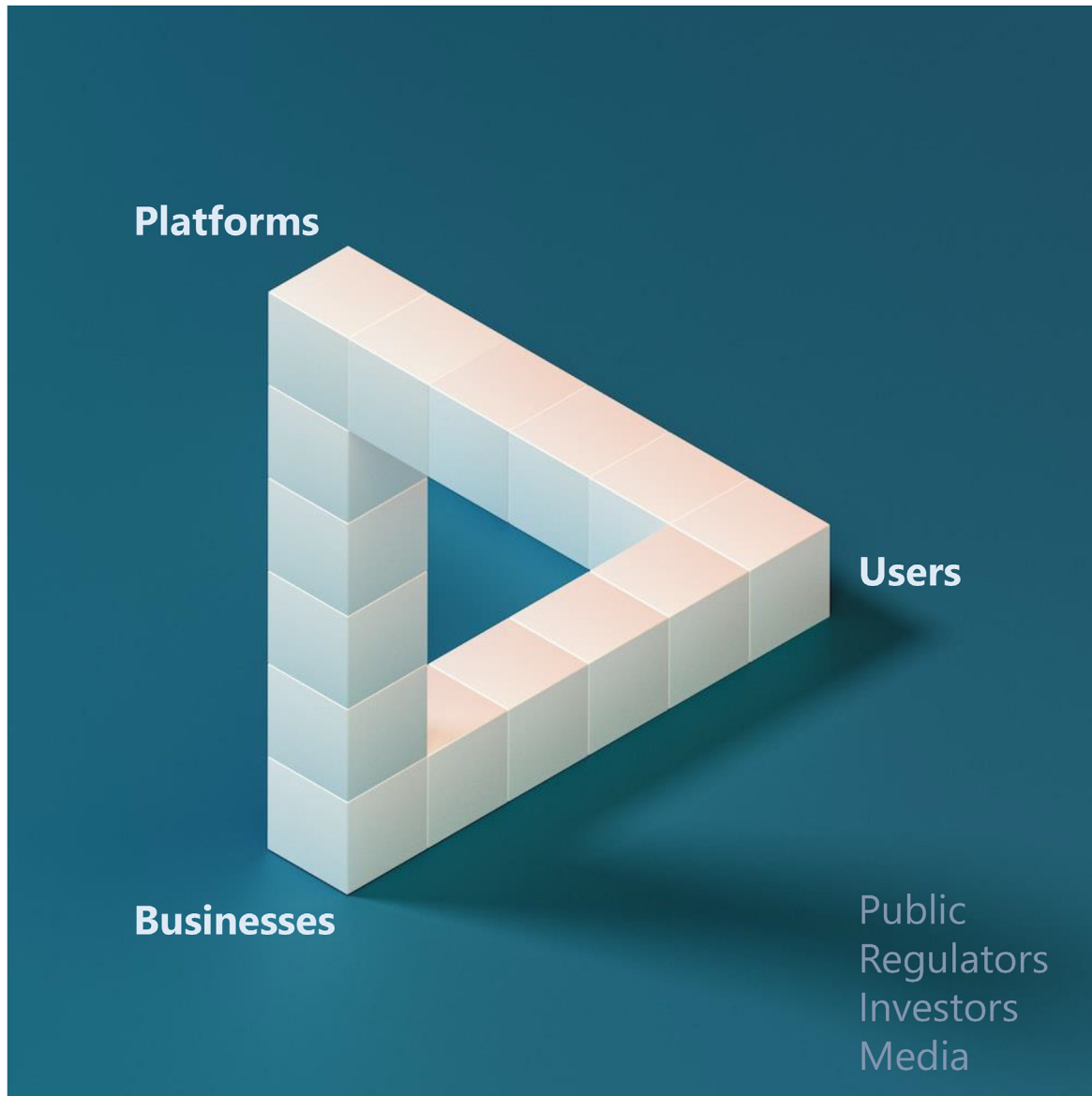
Competition in digital contexts is fundamentally different from that in traditional, physical contexts for several reasons. First, the parties involved often engage as a triad (illustrated in Figure 1) with platforms connecting businesses to users or customers while operating in an expansive ecosystem with stakeholders such as the press or the public. Unlike traditional dyads of competing peers, an economy driven by digital platforms is characterized by a multilateral context for competitive action in search of a fair distribution of economic value.

Second, the centrality of data in the digital economy and the near-zero marginal costs incurred by platforms while provisioning software leads to a Faustian bargain on the part of businesses and users (e.g., Google’s search engine is free), which steadily erodes competitive leverage against platform owner-operators. Third, the winner-take-all and lock-in effects that pervade the network economy often drive increasing returns for digital platforms, whose entrenchment tilts the balance of competition away from entrepreneurs (Rietveld & Schilling, 2021). This imperfection of competition in the digital economy is unavoidable in the era of *platform capitalism* (Pasquale, 2016), wherein access to data and sophisticated algorithms transmute into skewed outcomes that favor digital platforms. Evidence of this can be found in historically high take rates (i.e., revenue shares), such as 30% for Apple and Google app stores (Verge, 2021), up to 34% for Amazon (ILSR, 2021), and 45% for Instagram (2021).

1.2. Regulation of the digital platform economy

The escalating power of digital platforms has led to calls for active regulatory intervention (e.g., Baker, 2019; Coyle, 2019; Khan, 2017). However, the global nature of such platforms inhibits the likelihood and feasibility of governmental action against techno-economic rent-seeking (Birch et al., 2022). For example, the social messaging platform WhatsApp is owned by Meta (Facebook), a US company, but has its largest userbase—over 400 million—in India and its second-largest userbase—over 100 million—in Brazil (Statista, 2021). Such geographic dispersion in business activity can insulate a global monopoly from local regulatory

Figure 1. The digital platform economy triad



intervention, sustaining the overt power and covert influence of Web 2.0 platforms.

Moreover, the de facto monopoly of digital platforms exacerbates the critical issues of data privacy and information security. Not only is a large volume of personal data at risk of theft and misuse, but it can also be exploited by hackers or, worse, the platforms themselves to influence public opinion or suppress competition (Riemer & Peter, 2021). For example, Amazon is guilty of capitalizing on its sellers' information, leveraging it as market intelligence that guides the launch and promotion of directly competing fulfilled by Amazon products (Zhu & Liu, 2018). Of equal concern are revelations of political manipulation by platforms whose business models fall outside

the traditional scope of regulation. For example, Uber has been found to influence local and national governments to suppress competition from taxi unions (Guardian, 2022).

In response to such economic and sociopolitical concerns, governments have enacted legislation, such as the EU's General Data Protection Regulation, to protect personal data (GDPR, 2022). They have also sought to develop and implement anti-trust policies designed to limit market privilege, curtail collusion and, consequently, enable fairer and greater competition (Lancieri & Sakowski, 2021; Tirole, 2020). Whether it be the extreme concentration of influence or the technological capture of media (Nechushtai, 2018), the potential risks of platform power to a democratic society are

being closely examined (Miller & Vaccari, 2020). However, extant regulation of monopolistic platforms remains limited in scope, speed, and strength. Not only do antitrust policies and laws trail the exponential pace of digitalization of firms and industries, but they are also weakly enforced (Newman, 2019; Rogerson & Shelanski, 2020).

2. How do businesses currently compete with Web 2.0 platforms?

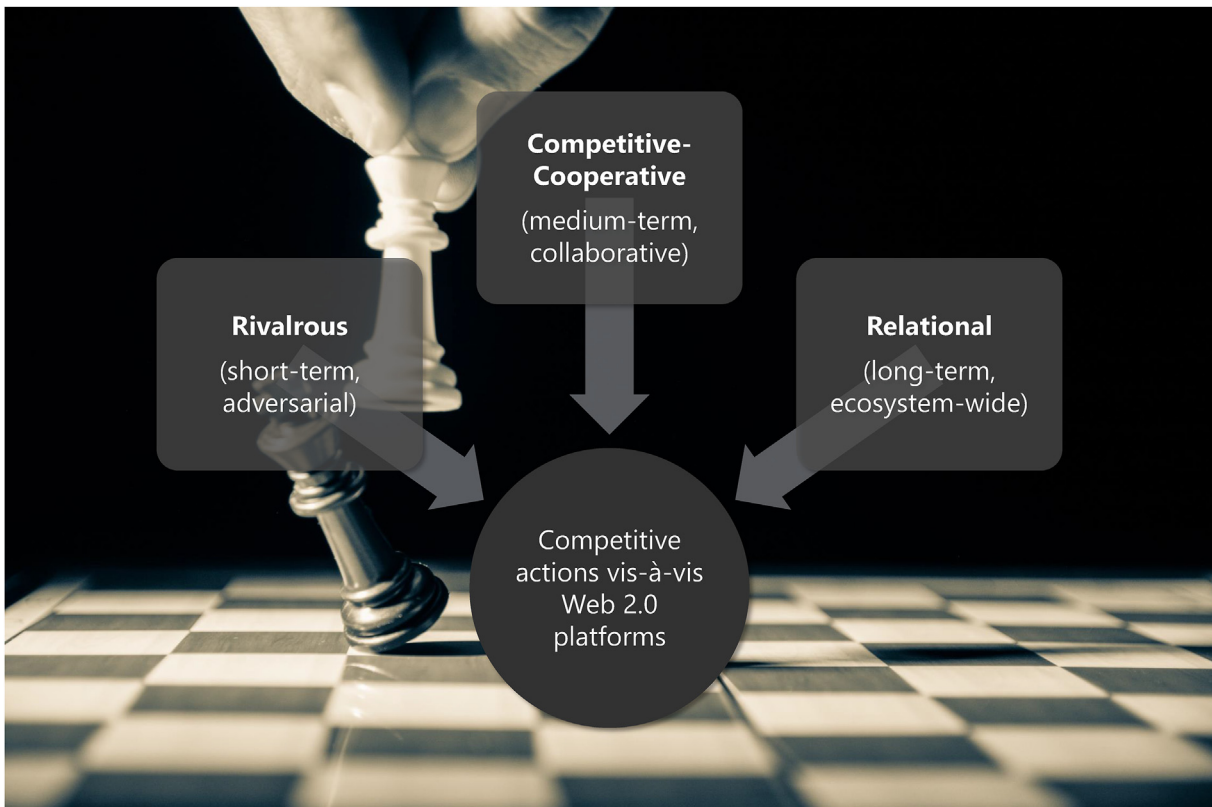
Amid such platform dominance and limited regulatory intervention, how do established or entrepreneurial firms compete with oligopolistic Web 2.0 platforms they depend upon? Scholars of competitive dynamics have distilled the competitive actions that firms undertake into three key modes: rivalrous, competitive-cooperative, and relational—as illustrated in Figure 2. *Rivalrous* modes are characterized by a zero-sum, attacking mindset against competitors, short-term orientation, and largely economic considerations. *Competitive-cooperative* modes involve intermediate time horizons and the possibility of collaborating with competitors, and *relational* modes include long-term thinking,

ecosystem-wide engagement, and a mix of economic and noneconomic (e.g., social, ideological) motivations for competitive action (Chen & Miller, 2015).

2.1. Rivalrous mode vis-à-vis Web 2.0 platforms

Most firms are unlikely to risk antagonizing the platforms they depend on, and their large user bases act as crucial resources that enable legitimacy and rapid growth (Srinivasan & Venkatraman, 2018). Occasionally, firms may engage in adversarial action, albeit in a collective fashion. For example, sellers on the [Etsy.com](https://www.etsy.com) marketplace jointly protested against Etsy's Star Seller program, advertising policies, and listing fees (Diaz, 2022). Those disgruntled with rent-seeking may use subversive irony as rhetoric (e.g., "Google giveth, Google taketh away"; Wired, 2007). Although such competitive action may not deter entrenched platforms, it may draw wider attention to rent-seeking. An exception to the avoidance of head-on rivalry with platforms is the entry of established incumbents from adjacent industries who resist platform power by asserting their

Figure 2. Modes of competitive action by platform-dependent businesses



market presence via digitalized offerings such as super-apps in Asia (Steinberg, 2020). Here, strategic resources such as geographic presence, strong brands, and a large, loyal customer base enable rivalry against established digital platforms (Roa et al., 2021).

2.2. Competitive-cooperative mode vis-à-vis Web 2.0 platforms

As an alternative to rivalry, vertical cooperation offers firms a mode of competition in which they cooperate with platforms while simultaneously competing in the final market with their products (Lechner et al., 2016). Alternatively, firms target market niches in which monopolistic platforms lack strategic interest and efficiency or are subject to substantial change. For example, Mastodon and Post News took advantage of the turmoil at Twitter following its takeover by Elon Musk by empowering users with features and freedoms that Musk threatened to curtail at Twitter.

Platform-dependent businesses may leverage such new entrants to circumvent entrenched ones. For example, content publishers have switched to nascent platforms such as Ghost.org, Patreon.com, and Substack.com with lower take rates (i.e., below 10%) that utilize revenue models based on subscriptions rather than advertising (Casner & Teh, 2021). Here, the focus on a set of loyal users and customers—colloquially, “1000 true fans” (Kelly, 2008)—may garner a larger fraction of economic value at a faster pace but at the expense of a smaller market size. The use of multiple platforms (e.g., Uber, Ola) by independent taxi owner-operators in India, combined with solicitation of repeat business from customers acquired via taxi aggregator apps (Kashyap & Bhatia, 2018), also illustrates how businesses avoid overt competition with dominant platforms while covertly disintermediating them.

2.3. Relational mode vis-à-vis Web 2.0 platforms

Strategic relationships across the broader digital ecosystem offer platform-dependent firms the option to pursue complex actions for a fair share of economic value. For example, Zoho partnered with an internet provider whose large user base strengthened Zoho’s competitive advantage over Google Apps, even though it competed with yet was also dependent upon Google’s Android platform (Cision PR Web, 2010). In addition, businesses may resort to nonmarket competitive actions such as lobbying and litigation. For example, Amazon

sellers’ complaints about unfair trade practices to regulators resulted in the platform having to scale back its private label business which impinged upon these sellers’ revenues (Zhu & Liu, 2018). Finally, businesses may engage with peers to compound the network benefits and garner enough market momentum to circumvent platforms altogether. For example, high-performing instructors on Udemy (2022), a global learning platform, often collaborate with competitors by jointly offering or marketing courses. Eventually, Udemy can redirect customers away from the platform and consequently retain a larger share of the revenue.

2.4. A technological savior on the horizon?

Despite the competitive actions that platform-dependent businesses engage in, their share of economic value remains a fraction of that captured by dominant platforms. Neither entrepreneurial entry nor regulatory intervention has mitigated the severe imperfection of competition in the digital economy. However, the advent of fundamentally novel technologies such as Bitcoin, blockchain, and smart contracts has energized the debate on rent-seeking by supposedly trustworthy custodians of valuable data, with Web3 seen as a promising antidote to platform power (Murray et al., 2023). This technological paradigm raises an important question: How might Web3 empower platform-dependent businesses to compete against platform power?

3. Web3: Speaking trust to power

Web3 is not simply Bitcoin, nor is it defined solely as crypto or NFTs (Park et al., 2022). Neither is its potential impact limited to creative industries (Chalmers et al., 2022). Interpreted broadly, Web3 is envisioned as the next generation of the internet, decentralized by design (Murray et al., 2023). This vision’s realization depends upon distributed ledgers called blockchains (Hughes et al., 2019), on which smart contracts run (Murray et al., 2021) and govern decentralized, autonomous organizations (Chawla, 2020). In this techno-utopian avatar, Web3 incentivizes businesses to directly connect with consumers via software-based consensus mechanisms (Park et al., 2023). Notably, Web3 differs from Web 3.0, envisioned as the semantic web wherein machine-interpretable metadata would enable automatic use by internet-based software. Instead, Web3 relies on decentralized architecture and trustless self-governance (Hawlitschek et al., 2018), made technically feasible by inventions such as the

Bitcoin cryptographic protocol (Narayanan & Clark, 2017).

Web3's reality remains far from its vision. The broader adoption of decentralized alternatives to Web 2.0 may be delayed or deterred due to speculative bubbles, fraud, and cryptocurrency meltdowns (Kyriazis et al., 2020). Moreover, the centrality of trust to Web3 has, paradoxically, made cost- and energy-efficient scaling the biggest growth challenge for decentralized applications on the blockchain (Angelis & Da Silva, 2019). Nevertheless, substantial improvements in Web3 infrastructure—such as the 99.9% drop in power consumption following Ethereum's Merge (Ethereum, 2023a)—indicate that Web3 is at a turning point, poised to exit the installation phase of the technological cycle and enter the deployment phase (Perez, 2010). The Web3 technology stack will reshape not only the principles of data ownership and monetization but also those of identity authentication and electronic payment (Web3 Foundation, 2022).

Thus, the next phase of Web3 will likely involve the steady disintermediation of monopolistic digital platforms (Ladd, 2022). While regulatory oversight and intervention will become increasingly relevant to competition in the digital economy, their role may be complementary—if not secondary—to disruptive Web3 technologies (Schrepeel & Buterin, 2020).

3.1. Decentralized trust: A novel aspect of competitive actions versus Web 2.0 platforms

As Web3 matures, its core principle of decentralized trust will likely play a pivotal role in the competition between platform-dependent businesses and entrenched platforms. Trust exerts a growing influence in the digital economy because consumers and regulators are increasingly concerned about digital data ownership and privacy (Martin & Murphy, 2017). Mounting evidence can be found for the breach of confidence and exploitation of trust by dominant platforms (e.g., US Senate, 2018; Waldman, 2016). These violations have led Web3 advocates to promote decentralized technological trust over centralized organizational trust.

What is decentralized trust? Trust enforced automatically by secure technologies—instead of manually by central entities—is considered decentralized. Unlike Web 2.0 infrastructure centered on digital platforms as discretionary mediators between businesses and consumers, Web3 infrastructure is built on automated algorithms that determine the

trustworthiness of parties, payments, and transactions. The Web3 stack—generally implemented as open-source code—is underpinned by significant technological advances in cryptography, distributed storage, automated mechanisms for organizational governance, information security, and identity verification, which render decentralized trust a viable alternative (Murray et al., 2021, 2023). Thus, the Web3 vision is to shift the onus of trust from the benevolence and integrity of dominant platforms to the technical competence and transparency of democratic algorithms (Chawla, 2020).

Decentralized trust may provide a solution to the fundamental bootstrap problem of competition in Web 2.0, in which businesses who seek to circumvent monopolistic platforms must meet the needs of a critical mass of early users to survive and thrive (Hanseth & Lyytinen, 2010). Trust may also play a focal role in how regulatory skepticism of cryptocurrencies and NFTs transforms into an embracement of Web3's principles of decentralization. Moreover, Web3 may shift the competitive impulse away from direct, adversarial actions against platforms toward indirect, strategic moves that leverage end users, peers, and regulators. These trust-centric competitive actions in Web3 are summarized in Figure 3 and explored in the following section.

3.2. Protect end users: Detract from Web 2.0

Monetization of users' personal data is the primary driver for the exponential and incessant growth of digital platforms (Cutolo & Kenney, 2021). Throughout the Web 2.0 era, end users have generated and shared zettabytes of digital content on such platforms. The de facto ownership of this invaluable resource by digital platforms is being questioned not only by regulators but by the users themselves. A key driver is the breach of users' trust by digital platforms in their pursuit of scale, exemplified by the violation of confidentiality to harvest personal data (Tene & Polenetsky, 2012). Another violation of trust on Web 2.0 platforms includes fake online reviews to attract new customers (Luca & Zervas, 2016), who are known to rely largely on ratings, reviews, and recommendations (Belleflamme & Peitz, 2018). Moreover, AI has raised alarms of algorithmic biases that, intentionally or otherwise, misuse personal data. Occasionally, end users have responded to such concerns. For example, net neutrality advocates campaigned against Facebook (now Meta) to protest the potential misuse of personal data (Prasad, 2018). In sum, end users are now highly sensitized

Figure 3. Leveraging end users, peers, and regulators in trust-centric competitive actions



to risks related to the security of their digital data and identities.

Amid this tumult, Web3 offers businesses a technological solution that obviates much of the need for centralized ownership of data and authentication of identity (Murray et al., 2023). By decentralizing data storage to distributed ledgers (i.e., blockchains) and using cryptography to authenticate identities, Web3 provides fine-grained control over personal data and selective disclosure of physical and digital identities. Evidence of this trust-centric competitive action, wherein businesses draw consumers' attention to trust violations by established platforms, is most observable in cryptocurrencies. Here, Bitcoin and other cryptocurrencies facilitate peer-to-peer payments—digitally, globally, and instantly—while avoiding the inevitable delays, exorbitant fees, and cumbersome paper trail required by financial institutions (i.e., centralized custodians). The promise of complete anonymity has compounded the competitive advantage of cryptocurrencies, with a Bitcoin address or a crypto-wallet ID sufficient to send or receive payments. The transparent

development and open-source availability of the underlying protocols have lent further credibility to the perceived security of such decentralized alternatives.

In addition, businesses focused on content creators (e.g., Patreon) have sought to draw users away from entrenched platforms by leveraging Web3 offerings (e.g., Ketch) to demonstrate their commitment to the responsible use of personal data. Proponents of Web3 have categorized information as *public* (to be published as open access), *agreed* (to be placed on a distributed ledger managed automatically by smart contracts), and *private* (to never be revealed). While Web 2.0 platforms have sought to intentionally blur this differentiation, which allows them to leverage data without necessarily owning it, Web3 proponents are redirecting users' attention from the benefits of freemium models to the associated threats of privacy violation and algorithmic manipulation. With a relentless focus on information security, businesses can leverage end users' concerns of trust as a competitive weapon of choice regarding monopolistic platforms.

3.3. Partner with peers: Solve the bootstrap problem

A fundamental problem that Web 2.0 platforms solved was the rapid aggregation of an initial set of users and customers to trigger network effects, which enabled the commercial viability of platform-dependent businesses. Amazon and the sellers that operate on its online marketplace exemplify this phenomenon. Instagram, Pinterest, and TikTok also illustrate the potential for exponential growth in a platform's user base after gaining a critical mass of early adopters. However, not all Web 2.0 platforms solved the bootstrap problem (Hanseth & Lyytinen, 2010). Web3's emphasis on decentralization exacerbates this problem, as the lack of a central authority can translate into a lack of critical mass and subsequent economies of scale (Picken, 2017).

One solution for platform-dependent businesses to overcome Web3's scaling disadvantage vis-à-vis Web 2.0 platforms is to build and leverage relationships with their peers. Democracy-centric Web 2.0 models—particularly platform cooperatives—can inform such strategic actions. Functioning as digital avatars of traditional worker co-ops, Web 2.0 platform cooperatives were designed as alternatives to platform capitalism (Scholz, 2016). For example, Stocksy United Photography is a Canadian platform cooperative, owned in part by the artists who use it and focused on royalty-free stock photography and video. In addition, Fairmondo is an attempt to create a global online marketplace similar to Amazon but its users retain ownership. However, these cooperatives rely largely on business model—not technological—innovation, causing infrastructure and policies to remain dependent upon a central authority (i.e., organizational trustworthiness). Therefore, their success has remained limited in scope and size.

Conversely, Web3 can combine the democratic design of such peer-to-peer platforms with innovations that enable contract enforcement, payment processing, and reputation management in a secure, auditable, decentralized manner (Patel Thompson et al., 2022). By thus obviating the traffic cop role played by centralized custodians such as Web 2.0 platforms, Web3 encourages businesses to partner with peers—often in a pseudonymous fashion—to acquire investors, users, and customers without an intermediary. The Ethereum (2023b) founding team's strategy to empower developers of dApps exemplifies a Web3 competitive strategy that leverages well-wishers

to overcome the bootstrap problem and reach a critical mass. Such democratic engagement and incentivization can be contrasted with the often antagonistic relationship between smartphone app developers and app stores (e.g., Google's or Apple's).

Besides technology-centric collaboration with peers, Web3 also features ideological partnerships driven by activist, anarchist, or utopian mindsets (Vidan & Lehdonvirta, 2019). Web3 proponents have pointed to the who-will-guard-the-guards problem of Web 2.0, with entrenched platforms characterized as digital panopticons amid growing public and regulatory distrust. This ideological stance—combined with the techno-utopian vision of a decentralized, democratic internet—has attracted many stakeholders, particularly those focused on cryptocurrencies and DAOs. Positioning blockchain as antitrust further enables Web3 businesses—acting in concert with peers—to entice consumers away from Web 2.0 platforms when the rule of law falls short in regulating them (Schrepel & Buterin, 2020). Judicious use of collective market and nonmarket actions, ranging from technology and go-to-market partnerships to political lobbying and public appeals, may help businesses disintermediate the platforms they depend upon.

3.4. Persuade regulators: Do good

Besides end users and peers, regulators also play a pivotal role in Web3's enablement of novel competitive actions for platform-dependent businesses. While the first phase of Web3 has been characterized by regulatory concerns related to frauds, scams, and volatility in cryptocurrencies and NFTs (Kyriazis et al., 2020), the tide is shifting toward the broader Web3 principle of decentralized trust. Concerns of privacy violations and algorithmic manipulation by digital platforms have long primed the ground for antitrust actions by governments across the world. While laws have tended to lag the rapid pace of digitalization, regulators are finally catching up to the Web3 phenomenon. For example, the US House of Representatives recently began hearings on a bill to regulate nonbank stablecoin issuers and, importantly, explore the development of a central bank digital currency (i.e., a digital US dollar).

Regulators have begun to embrace the governance possibilities enabled by the advances in cryptographically secured, distributed ledger technology—particularly to mitigate public harm that arises from the abuse of platform power. This

legitimization of Web3's fundamental innovation has lent credibility to business endeavors centered on decentralized trust. For example, regulatory concerns about corporate abuse of carbon credits—which has been worsened by recent revelations about the lack of veracity in carbon offsetting—have resulted in initiatives such as GainForest, a venture that leverages smart contracts to enhance trust in such environmental endeavors (Forbes, 2023).

While engaging regulators, Web3 businesses can employ procedural rhetoric (e.g., by positioning Bitcoin as a computational process and protocol instead of money; Bellinger, 2018). Such appeals, targeted at helping regulators overcome concerns of corruption, contrast the platform rhetoric of dominant corporations. Such imperious players often seek government protection for facilitating user expression, which allows them to draw monetary gains while simultaneously lobbying to limit the platforms' liability for what its users say (Gillespie, 2010).

To further draw regulators' attention to the public good attained by adopting Web3 principles, businesses can focus on the digital divide in which billions lack digital access and identity. While Web 2.0 platforms focused on commercial outcomes have largely ignored such end users, Web3 ventures may finally enable them to participate in the digital economy by providing frictionless, decentralized, and secure mechanisms for monetizing personal data or resources. For example, Fonbnk is a distributed finance venture focused on emerging markets that provides a financial onramp for unbanked citizens. In Africa, it allows users to convert airtime on a prepaid SIM card into a virtual debit card. As such, low-income citizens who often lack access to financial resources via traditional banking may experience financial inclusion through Web3 applications, particularly DeFi products with regulatory approval.

Indeed, regulatory interoperability (i.e., the inclusion and blessing of jurisdictional authorities) is expected to play a crucial role in Web3 (Park et al., 2023). Regulatory oversight of Web3 will likely be accompanied by regulatory support for Web3—particularly amid increased sociopolitical concerns regarding platform dominance. Worldwide experiments involving digital currencies indicate a growing interest among central banks in disintermediating commercial banking platforms to improve payment efficiencies and access to financial services. In sum, regulators can be powerful levers in competitive encounters against entrenched Web 2.0 platforms. With decentralized trust as their mantra, platform-dependent businesses can

persuade regulators to support the adoption of Web3 technologies in the battles against rent-seeking, unfair trade practices, and platforms' abuse of dominant market positions (Rogerson & Shelanski, 2020).

4. Implications for business scholars

By evaluating the role of decentralized trust in competitive actions undertaken by businesses vis-à-vis the Web 2.0 platforms, this study contributes to emerging research at the intersection of competitive dynamics and digitalization with a focus on Web3. First, scholars should monitor the sociopolitical and legal landscapes for governmental actions that move beyond regulating Web3 applications (e.g., NFTs) toward the unreserved adoption of Web3 principles and technologies (Frederiks et al., 2022; Lancieri & Sakowski, 2021).

Second, scholars can examine competition in the digital economy while assuming that Web3 is rapidly approaching the deployment phase of the decentralization paradigm. With the Bitcoin protocol as the radical innovation and public or private blockchains as the new infrastructure (Perez, 2010), the digital platform economy is approaching a turning point that will disrupt centralized custodians (Ladd, 2022). In the internet's next avatar, built on the bedrock of decentralization (Murray et al., 2023), trust-centric competitive actions will likely play a focal role in mitigating the threats to free speech, privacy, and democracy from the concentration of power in the Web 2.0 economy.

Third, Web3 scholars are encouraged to look beyond the bursting of the cryptocurrency and NFT bubbles (Chalmers et al., 2022), which—to the detriment of the decentralized web—have allowed dominant platforms to remain entrenched and exposed the challenges of purely technological trust (Ferraro et al., 2023). As such, scholars can examine developments such as Ethereum's Merge, sharding, and off-chain scaling for evidence of three outcomes: (1) the scalable-secure-decentralized trilemma of Web3 is being addressed (Zhou et al., 2020), (2) the disintermediation of Web 2.0 platforms is accelerating, and (3) businesses are recovering a fairer share of the economic value they create in the digital economy.

4.1. Competitive reactions by incumbent platforms

While this study focuses on the action component of the action-reaction-performance framework of competitive dynamics (Chen & Miller, 2012), the

competitive actions undertaken by entrepreneurs will invite reactions from incumbent digital platforms. For example, Facebook’s Metaverse is a centralized and social VR platform (Dincelli & Yayla, 2022) designed to retain and expand its footprint while competing against new centralized (e.g., Roblox) and decentralized (e.g., The Sandbox) platform entrants (Newzoo, 2021). In addition, Microsoft’s acquisition of GitHub (Rikap & Lundvall, 2020) illustrates how closed digital platforms may absorb communities built on open-source principles. In finance, incumbent banks have chosen to collaboratively launch the interoperable electronic payment platform Zelle (Caceres-Santamaria, 2020) in response to rising threats of disruption by entrepreneurs in the peer-to-peer digital payments industry. In the hotel industry, the noticeable success of entrepreneurial hosts on the Airbnb platform has altered the pricing and positioning strategies of traditional hotels (Chang & Sokol, 2022). These market reactions by Web 2.0 incumbents offer compelling areas for future scholarly research on multilateral competition in the digital economy.

Notably, the Reserve Bank of India’s Unified Payments Interface platform (NPCI, 2016) exemplifies how digital platforms—despite being centralized—can act as public goods rather than rent-seeking monopolies. By leveraging the public’s trust in regulatory authorities, such platforms operate without fully relying on trustless technologies such as blockchain. As such, scholars can examine how policymakers who partner with platform-dependent

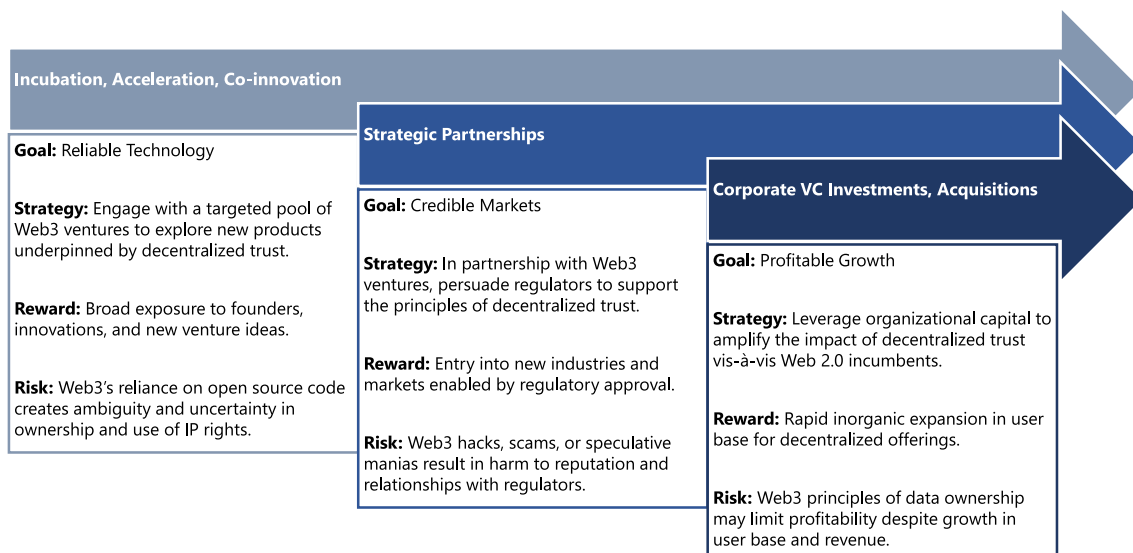
businesses can partially alleviate the current tension between decentralized trust and economies of scale in Web3.

5. Implications for business leaders

The salience of decentralized trust to competitive actions in Web3 carries several important implications for leaders of platform-dependent businesses. *Corporate venturing*, or “the set of organizational systems, processes, and practices that focus on creating businesses in existing or new fields, markets, or industries” (Narayanan et al., 2009, p. 59), offers a pertinent lens to examine these implications. Corporate venturing usually involves internal and external means—the latter regarding the competitive dynamics of the digital platform economy triad. Specifically, external corporate venturing (ECV) ranges from arm’s-length engagements via accelerators, incubators, and coinovation partnerships to increasingly closer ties via strategic partnerships, corporate venture capital investments, and acquisitions (Enkel & Sagmeister, 2020).

Figure 4 illustrates how, depending on the overarching goal, business leaders can engage in a focal strategy involving peers, end users, or regulators in the pursuit of competitive advantage compared to Web 2.0 platforms. As they begin the decentralization journey in earnest, platform-dependent businesses can first focus on the (inorganic) development of reliable Web3 technologies that overcome the scalable-secure-decentralized

Figure 4. External corporate venturing in Web3



trilemma (Zhou et al., 2020). The broad exposure to teams and technologies—gained via engaging with Web3 ventures—can culminate not only in new Web3 offerings but also pave the way for future *acquihires* that provide human capital with technical prowess (Gala & Mueller, 2022). However, this stage comes with attendant risks that center on intellectual property (IP) rights, given the prevalence of open-source code in Web3. The pursuit of reliable technologies that enable decentralized trust will require leaders to carefully carve out rights to IP ownership, usage, and commercialization.

Following productive engagements with peers through ECV modes such as incubators, accelerators, and coinovation, platform-dependent businesses can then shift their focus to regulators. Here, the overarching goal is to identify and enter credible Web3 markets that promise substantial growth, and the credibility will likely hinge upon regulatory approval and support. Rather than going alone, businesses should leverage Web3 partnerships to collectively engage with regulators and clarify the complexities of Web3 infrastructure, which ranges from cryptography and distributed ledgers to algorithmic governance and smart contracts. Recent regulatory developments in stablecoins and central bank digital currencies (CBDCs) exemplify this stage, wherein business leaders proactively engage with regulatory authorities to help limit public harm caused by the abuse of platform power in Web 2.0. The legitimacy gained for Web3 is crucial for justifying the investment of significant organizational resources in the pursuit of high-growth market segments underpinned by decentralized trust. However, business leaders must also monitor and manage the attendant risks of reputational harm prevalent within Web3, given recent scams, frauds, and speculative manias in cryptocurrencies and NFTs (Kyriazis et al., 2020).

Following advancements in Web3 via the development of new offerings and entry into new market segments, platform-dependent businesses can finally pursue the large-scale acquisition of end users and, consequently, revenue growth. With an emphasis on the disintermediation of Web 2.0 platforms, business leaders must leverage organizational resources—primarily financial capital—to make corporate venture capital investments and targeted acquisitions. Competing with dominant platforms for scale calls for inorganic growth via risk capital investments that are contingent upon reliable technologies and credible markets. Notably, a dearth of validated business models built on decentralized trust indicates that profit margins constitute the key

uncertainty at this stage, given Web3's principles of data ownership.

6. Final thoughts

Dominant digital platforms capture as much as 40% of revenue—and even greater gross profit margins—generated in the global digital economy. By effectively owning the personal data of users, Web 2.0 platforms have benefited from network effects, lagging regulation, and a paucity of alternatives to centralized organizational trust. However, Web3 promises to disrupt and disintermediate oligopolistic platforms by enabling decentralized technological trust. As such, the nature of competition between businesses and the digital platforms they depend upon will be transformed so that peers, end users, and regulators play a crucial role in indirect competitive actions by platform-dependent businesses. Web3 will also feature competitive actions driven by ideological and sociopolitical factors besides technological advances in cryptography, distributed storage, and governance. While Web3's utopian vision of a truly decentralized internet is far from full realization, it offers businesses a powerful weapon in the battle for a fairer share of economic value.

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