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The Darker Sides of Digital Platform Innovation

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Ask a roomful of antitrust lawyers and economists what is most responsible for advances in our standard of living, and the likely consensus is innovation. Repeat the question in any international forum on competition, and you will likely hear similar comments: innovation is vital to economic growth and our overall well-being. It “is responsible for most of the increase in material standards of living that has taken place since the Industrial Revolution.”¹ No quibble about this.

Many also agree on the role of competition law in safeguarding innovation. Careful enforcement of the law should encourage, rather than chill, dynamism, and innovation.

So far, so good. But moving from abstract concepts to actual enforcement, differences in ideology and the conceptualization of market dynamics reveal a visible divide on whether there is an innovation problem in need of fixing. And if there is, how to best address it. The challenge is particularly evident when looking at the digital economy.

On the one hand, when it comes to innovation the digital economy delivers on many fronts, offering us new products, technologies, and means to communicate, trade, and explore. Platforms and ecosystems are often compared to coral reefs that attract innovators, disruptors, and new businesses. They facilitate entry, expansion, and investment. Indeed, there is little doubt as to the significant investment in research and development by the leading tech firms, such as Google, Apple, Meta, Amazon, and Microsoft.

On the other hand, a closer look at these Big Tech Barons’ digital ecosystems and their effects on innovation, reveals a different image — one where these gatekeepers deploy a range of weapons to distort the paths of innovation to favor their value chain

¹ <https://www.oecd.org/daf/competition/39888509.pdf>

and quash disruption. In our recent book *How Big-Tech Barons Smash Innovation—and How to Strike Back* (HarperCollins 2022), we explore a range of drivers and strategies that impact digital innovation, and consider possible means to promote value-added innovation. In what follows we highlight several areas where we should pause and reflect on the darker sides of digital platform innovation.

First, is the coral reef metaphor, which posits digital ecosystems as drivers and promoters of innovation. While large platforms facilitate business access and promote some innovation, they also stifle plenty. Often, they use their vast powers to suppress and distort the flow of disruptive innovation that threatens their value chain or power. Being in control of an ecosystem and in the position of advanced technologies, the gatekeepers can identify market patterns and discern trends (and threats) well before others, including the government. This data advantage turns their “nowcasting radar” into a game-changer. Facebook, for example, acquired the data-security firm Onavo to track users’ smartphone activity. That technology was central in its acquisitions of perceived competitive threats, including WhatsApp. With a clear view of risks beyond the horizon, the large platforms that control ecosystems, the Tech Barons, can engage in strategies aimed at distorting the supply of disruptive innovation. This includes their excluding disruptors from their ecosystem by refusing access or reducing interoperability. Strategies to distort the growth of disruptive technology may also involve their copying technologies to deprive disruptors of the scale necessary to survive, limiting disruptors’ access to long-term funding, and of course, acquiring these disruptors.

Second is the belief that consumer preference dictates the flow of innovation in digital markets. If Tech Barons advance some innovations over others, that is arguably a reflection of what we desire. But the reality is more complex. With market power and control over the ecosystem, come the ability to distort consumer demand. What may seem like a natural market dynamic in which consumers operate freely, is often more akin to a controlled ecosystem. Like Truman in the movie ‘The Truman Show’, we may have a sense of autonomy when we choose services and apps online, but we may likely be traveling a path that was carefully designed for us. Using dark patterns, self-preferencing, and other means, Tech Barons can nudge us toward innovations they want us to adopt and away from innovations that may disrupt their ecosystems. The path to innovation that sustains (and fortifies) the Tech Baron’s value chain is frictionless (think, for example, how Amazon’s Buy Box reduces friction for purchasing items). In contrast, our paths to innovation that may disrupt the Tech Barons’ value chain have many more obstacles, enough to deprive it of scale and experimentation (think of the challenges associated with side-loading apps on Google). So, the disruptive innovators (whom we call the Tech Pirates) face a dilemma: disrupt the Tech Baron’s ecosystem (and be destroyed or perhaps acquired) or steer their innovations to areas not yet captured by the Tech Barons. In the face of

significant obstacles from Tech Barons, much disruptive innovation simply doesn't make it to the market.

Third, is the nature of innovation. The term innovation is commonly associated with positive-value-creating initiatives. But in the digital ecosystem economy, once innovation is not driven by our desires, its implementation may run against our personal and societal interests. As the Tech Barons become more powerful, the nature of innovation they foster changes. Products and services that were originally meant to help us, are now being designed to extract more value from us. Our book looks at the transition of behavioral advertising. Originally, the Tech Barons justified collecting data about us and tracking us across the web to deliver more relevant ads to us. But the technology changed from predicting what we want, to better manipulating our behavior and emotions. Some recently registered patents reveal the direction in which many new technologies are heading, including algorithms that can decode our emotions and thoughts. Ultimately, our smart gadgets are not designed for our benefit but to exploit us. And those who are most vulnerable to exploitation, the economically and culturally marginal and at-risk segments of our population, will be the ones who suffer the most.

Fourth are the ripple effects of toxic innovation. To put it simply, what happens online does not stay online. The toxicity and distortion of the supply and demand for innovation are not confined to the online world; they affect us even if we seek to avoid the Tech Barons ecosystems. We discuss how the toxic innovation to manipulate our behavior is redeployed elsewhere, such as in the political arena. You may have heard of Cambridge Analytica, but this is just one high-profile example that we discuss in the book. Ultimately, the toxic innovation from Tech Barons' ecosystems ripples through society, helping spread conspiracy theories, fake news, and hate. When Facebook's algorithms, for example, rewarded negative stories, political parties became more negative in their messaging. This rancor and tribalism weaken trust and democratic systems. Similarly, the new technologies affect our self-esteem and mental health. Beyond the political, societal, and human stories lies a technological story. A story of innovation designed to drive profits, irrespective of the effects on democracy, society, and our well-being.

So where does it leave us?

The digital economy, while delivering many benefits, at the same time is increasingly captured and distorted. The Tech Barons' investment levels in research and development seem high, yet disguise their qualitative impact of reduced disruption, reduced plurality, and increased toxicity. Markets may seem competitive, yet are populated with selected innovation that supports the ecosystem's value chains. And while innovation is high on the antitrust agenda, its dynamic and unpredictable nature often makes it too illusive to engage with. Overall,

the rise of CSI Antitrust (which focuses on price and output), and the current analytical tools that are often designed for static exploration, underperform against claims of future disruption and uncertainty. As a result, enforcers and policymakers largely did not focus on mergers’ and restraints’ impact on innovation. Furthermore, they turned a blind eye to the value chains that power many of the strategies at stake. And so, while everyone talks about disruptive innovation, there was little antitrust authorities actually did, besides a few cases, to protect it.

The limitations of the existing antitrust tools have put the digital economy on the wrong trajectory, and have prompted policymakers to propose new regulatory tools. Noteworthy are Europe’s new regulations, such as the Digital Markets Act, Digital Services Act, and Data Act, as well as the proposed legislation in the United States. These new tools are an improvement over the status quo, in targeting certain strategies that undermine disruptive innovation. But many of the new and proposed regulations focus on past anti-competitive or exploitative strategies, and will not stem the toxic innovation in the Tech Barons’ ecosystems.

Innovation in the digital economy, in our opinion, warrants a more targeted policy that acknowledges its qualitative dimensions, and the distortion of innovation paths. Our book explores three key principles that should guide future policies aimed at promoting innovation in the digital economy and beyond:

- First, policymakers must consider the *value* of the innovation and whether it creates, destroys, or extracts value. A quantitative appraisal of the levels of investment in research and development does not offer a comprehensive prism for assessment. Not all innovation increases value, so not every innovation is desirable. Thus, policymakers, and enforcers must inquire about the type of innovation (sustaining or disruptive) and whether it increases or reduces our well-being (that is, whether it destroys, extracts, or increases value).
- Second, policymakers must consider the *incentives* which are directly influenced by the ecosystem’s value chain. Policymakers must inquire which entity is designing the ecosystem and influencing the innovation paths, what are the ecosystem’s value chains, and what incentives it fosters. As our book explores, what’s good for the Tech Baron is not necessarily good for us. And so, one must understand the incentives at play (that flow from the value chain) and ensure these incentives align with our interests. Every ecosystem is regulated—whether by Tech Barons, informal norms, or laws, rules, and regulations (that incentivize a range of actions and strategies). If policymakers assume that the marketplace is naturally self-regulating and that the market participants’ incentives will always align with our interests, they are ill-informed.

- The third principle concerns the *diversity of innovation*. The antitrust policies should promote an effective competitive process that enables disruption and innovation plurality, and offers Tech Pirates a viable opportunity to prosper. The diversity of innovation paths is crucial for future prosperity. We cannot predict who will emerge as the next disruptor, given their high rate of failure and the evolutionary selection on which we rely to ensure that the right innovation prospers. But we can hedge our bets by fostering a plurality of innovators and the ensuing collision of ideas from different fields.

These three principles can help advance more nuanced policies that maintain the incentives of Tech Barons to innovate while opening opportunities for new waves of disruptive innovation. Value creating innovation, stemming from a competitive and heterogeneous landscape, is not inevitable. In the current market reality, a guiding hand is needed to enable it. Our future prosperity and livelihood depend on it.

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