

infrastructure

Vol. 62, No. 3, Spring 2023

Meta-Regulation: Regulatory Framework for a Virtual World

By Joe Cosgrove Jr.

“Life moves pretty fast. If you don’t stop and look around once in a while, you could miss it.”

—Ferris Bueller, *Ferris Bueller’s Day Off*, (1986)

Like Ferris Bueller said, the world comes at you fast—and in the area of technology, this is clearly an understatement. Moore’s law¹, an observation that the number of transistors on a computer chip doubles about every two years, illustrating the speed and complexity at which technology evolves, seems almost quaint at this point. Headlines regarding the advancements in the deployment of broadband facilities for the internet and artificial intelligence (AI) are no longer seen as dramatic events. But one area that is capturing attention and imagination is the metaverse, or virtual reality (VR).² Is the metaverse here already? If not, when does it arrive? Will VR become a reality? Will we spend a lot of time in the metaverse?

So, let’s “stop and look around” and discuss what exactly the metaverse is. And then we should tackle the question of what the appropriate regulatory framework should be for the metaverse/VR. I label this framework *meta-regulation*.³ Please put on your 3D goggles so we can explore this area together.



Cosgrove

Joe Cosgrove Jr., jcosgrove@law.utexas.edu, is an adjunct professor at the University of Texas Law School in Austin, Texas. Cosgrove teaches the course, “Internet and Telecommunication Regulation.” Opinions expressed in this article are solely those of the author.



Image © Weiquan Lin via Getty Images

What is the Metaverse?

Lawyers and professors often start with definitions of key terms. This article is no different. The term *meta* has taken on a life of its own. *Meta* is used in combination with many words today, from *metafiction* to *metadata*. *Meta* is Greek in origin and means “among, with, after,” and was first used by Aristotle to give a title to his second book on physics, “*Metaphysics*.” Indeed, *meta* has become an object of its own reflection.⁴

continued on page 3

Meta-Regulation: Regulatory Framework for a Virtual World

continued from page 1

Noam Cohen wrote a prescient piece, *Meta-Musings*, in 1988 saying that “meta” was going to grow into meta usage in the future.⁵ But the origin of the term “metaverse”⁶ has been credited to Neal Stephenson in *Snow Crash*, his 1992 bestseller:

So Hiro’s not actually here at all. He’s in a computer-generated universe that his computer is drawing onto his goggles and pumping into his earphones. In the lingo, this imaginary place is known as the metaverse. Hiro spends a lot of time in the metaverse.⁷

Interestingly, the year before Stephenson’s book was published, Senator Al Gore led a Senate subcommittee hearing on VR.⁸ Gore noted that people had asked what VR was and why a hearing was being held on the unfamiliar topic. Gore explained:

Virtual reality promises to revolutionize the way we use computers. At least, that is my opinion. It could improve the way we design new products, how we teach our children, and how we spend our free time. It has the potential to change our lives in dozens of ways.⁹

One witness in the hearing discussed the origins of the predecessor term *virtual world*:

Ivan Sutherland in 1965 coined the term *virtual world* to define systems in which the users are immersed in scenes created by computer graphics, and he stated the vision: to make the objects in the scene “look real, sound real, feel real, and move realistically as the user interacts with them.”¹⁰

The hearing even included a field trip for the legislators to see a demonstration of “how powerful the new technology is.”¹¹ Defining the metaverse is a bit more challenging than one may think. Indeed, it may be an “eye of the beholder” concept at this point. But I think the best attempt to define the term metaverse is from Matthew Ball’s excellent must-read book on this

topic, *The Metaverse: And How It Will Revolutionize Everything*:

A massively scaled and interoperable network of real-time rendered 3D virtual worlds that can be experienced synchronously and persistently by an effectively unlimited number of users with an individual sense of presence, and with continuity of data, such as identity, history, entitlements, objects, communications, and payments.¹²

Mark Zuckerberg and his company Meta describe the metaverse as follows:

- The metaverse is the next evolution in social connection and the successor to the mobile internet.
- Imagine a set of digital spaces that you can move seamlessly between.
- Like the internet, the metaverse will help you connect with people when you aren’t physically in the same place and get us even closer to that feeling of being together in person.¹³

A recent Congressional Research Service report said that metaverse services will likely feature three characteristics to separate them from two-dimensional applications:

1. an immersive, three dimensional (3D) user experience;
2. real-time, persistent network access; and
3. interoperability across networked platforms.¹⁴

Is the metaverse simply going to be an enhanced video game where we may assume the role of quarterback for the Cowboys (per a Meta commercial) or where we walk in someone else’s shoes to gain insights into their experiences or where we show up at business meetings in a zebra avatar¹⁵—or all of the above? Will government meetings or voting on issues/elections be held in the metaverse?¹⁶ Will the metaverse replace travel or be a place to meet another avatar to see where those encounters lead? Or will there be much more than we currently “see,” as there often is with technological developments?

Is the metaverse simply going to be an enhanced video game where we may assume the role of quarterback for the Cowboys? . . .



What are the motivations for metaverse developers? To improve life for society? To make money? Both? Cory Ondrejka observed in 2004 that:

[i]n fact, one of the few missteps in *Snow Crash* is that its main character has virtual wealth but not real world wealth. For the Metaverse to be successful, virtual wealth must be convertible to real wealth.¹⁷

Ondrejka argued that the “free market requires creators to have ownership and rights, thereby generating both wealth and capital in order to fuel growth.”¹⁸ Is this the right approach? Are we prepared to leave the development of the metaverse to a few “know-it-alls”?¹⁹

Are We There Yet? Will We Ever Get There?

Again, this is a topic of some dispute. Indeed, some are very skeptical that the metaverse will even become a reality (pun intended). But I think the answer is that the metaverse remains in its infancy, with an active participant population about the size of Sioux Falls, South Dakota. In fact, there is no guarantee that the fully envisioned metaverse will ever become a part of our everyday lives (but I wouldn’t bet against it).²⁰ Will there be “enough” people who want to wear sweaty goggles for hours at a time?²¹ Certainly, there are many obstacles, from hardware to software, that must be addressed. Even Meta, which is banking its future on the metaverse, is facing serious challenges at this point. However, there can be little argument that the COVID-19 pandemic boosted online usage and perhaps the concept of VR.²²

Mega-Decision: Permissionless Innovation or “Mother, May I?” Approach?

Arguably, before even reaching a determination on regulatory policy and subsequent law/enforcement mechanisms, society must make fundamental decisions.²³ In the case of technological developments, society has taken a wide variety of approaches. In the early railroad, telegraph, and telecommunications days, society gravitated to the government “granting permission” for related activities such as deployment. More recently, the growth of the internet and mobile communications has flourished with a more hands-off approach.

In his book *Permissionless Innovation: The Continuing Case for Comprehensive Technological Freedom*, Adam Thierer contrasted what he called the “precautionary mindset” with the “permissionless innovation” approach.²⁴ He described the responses by policy makers to be on a continuum from “prohibition” (e.g., product bans) and “anticipatory regulation” (e.g., licensing) to “resiliency” (e.g., education) and “adaption” (e.g., coping social norms).²⁵ Thus, these approaches would range from curtailing development until developers can prove they will not cause harm to the permissionless approach of permitting new technologies to develop by default. Thierer obviously is a proponent of the latter, arguing in part that life involves “risk,” pointing to numerous new technological marvels (e.g., the Internet of Things, drones, driverless cars, etc.).²⁶

Thierer does concede there generally is a role for “some regulation,” but he urges “simple rules for a complex world” (citing author Richard Epstein)²⁷ and not imposing rules without a “cost-benefit” analysis.²⁸

In the case of the metaverse, then, should the permissionless innovation approach be allowed to continue, or is there enough concern due to the size of providers and the ills produced by the current internet and social media to warrant a more hands-on regulatory approach?

Should the Metaverse Be Regulated?

Recognizing these obstacles, it still would not be prudent policy to sit back and see how things develop in the metaverse. Policy and law seem to routinely be in a catch-up mode with technology. This may be a time for once for policy makers to try to get ahead of issues. In any

event, we should not leapfrog past some basic constitutive decisions, such as whether the metaverse should be regulated. If it was to be regulated, what entity or entities should do regulate it? For that matter, what entities should be involved in the development of the metaverse?

While such questions may seem a bit esoteric, they present issues that are not entirely new to policy makers. These types of foundational questions had to be made with respect to previous platforms ranging from broadcast to cable to telecommunications (initially with very hands-on regulation) to broadband and wireless to the internet (with initially very hands-off regulation). These prior evolutions are cases to study

We should not leapfrog past some basic constitutive decisions, such as whether the metaverse should be regulated.



in our current quest. Moreover, once these foundational questions are answered, they seem to “stick;” case in point is the establishment of the Federal Communications Commission (FCC) in the Communications Act of 1934.

Foundational Decisions

But even before we review those learnings from prior evolutions, we should follow a basic regulatory test. Professors Stuart Benjamin and James Speta suggest the following as a general policy framework:²⁹

- What market failures, if any, justify proposed regulation?
- What are other justifications for regulation?
- What does government need to know to administer regulation?
- What are likely market and non-market effects of regulation (e.g., entrenching incumbents and/or thwarting upstarts)?
- How will the government determine if regulation is working?
- Can regulation be explained as a product of public choice³⁰ theory?

A shorthand interpretation of this framework is the weighing of the costs versus the benefits of any proposed regulation. Considering possible regulation of the metaverse presents several challenging questions: Is the “marketplace” responsibly developing the metaverse? Does the government need to step into the metaverse? Does the government understand what the metaverse is or will become? How would the government assess the success of any regulation of the metaverse? What are the real underlying aspirations of any such regulation (e.g., protection, power, etc.)?

Currently, there is developing bipartisan skepticism that large private players such as Google, Facebook, Amazon, etc., should be left to their own devices; President Biden has even urged Republicans and Democrats to “rise up” against “Big Tech.”³¹ Calls for antitrust reviews are increasing. Indeed, there are some pending cases (e.g., ones against Google and Meta, described herein). This market dominance raises the question of whether the government needs to step up its game as to the metaverse. These are not new and novel questions.

A witness from the 1991 Senate hearing mentioned above advocated as follows:

The Basic Idea. Judge regulations by whether they discourage nonproductive ways of making money, instead of by whether they correct for extreme economic conditions.³²

This somewhat interesting statement apparently was making the point that any government funding or investment rules that are not directly tied to the production of VR should not be made. In one real sense, the government has been actively promoting the development and deployment of broadband services both fixed and mobile, including 5G wireless networks (through various funding mechanisms). These services and networks are critical to the development of the metaverse.³³

Perhaps the guide to meta-regulation should be the policy approach utilized with the development of the internet. The decision to privatize management of internet names/addresses began with the principles set forth in the Clinton administration’s statement on internet policy, the Framework for Global Electronic Commerce (Framework 1997):

- “The private sector should lead.” *Innovation will result from a a market-driven arena.*
- “Governments should avoid undue restrictions on electronic commerce.” Unnecessary regulations and taxes would thwart development.
- Government should “support . . . a . . . minimalist, consistent and simple legal environment for commerce.” This framework would ensure competition, protect intellectual property and privacy, and prevent fraud.

- “Governments should recognize the unique qualities of the Internet. The genius and explosive success of the internet can be attributed in part to its tradition of bottom-up governance.” Its decentralized nature challenges existing regulatory models. *Do not assume the old regulatory framework applies.*
- “Electronic [c]ommerce over the Internet should be facilitated on a global basis.”³⁴

Similar ideas may be found internationally in the communiqué issued by the Organisation for Economic Co-operation and Development (OECD) at a high-level meeting in 2011:

A shorthand interpretation of this framework is the weighing of costs versus benefits of proposed regulation.



- Promote and protect the global free flow of information. In doing so, the government should protect “personal data, children online, . . . and . . . cybersecurity.”
- Promote the open, distributed and interconnected nature of the Internet, a decentralized network that enables collaboration and innovation, globally accepted and developed without an international regulatory regime.
- Promote investment and competition in high speed networks available at reasonable prices and promote broad geographic coverage.
- Promote and enable cross-border delivery of services.
- Encourage multi-stakeholder cooperation in policy development processes.³⁵

Not to be outdone by past statements on internet governance, the Biden administration entered into a joint declaration about internet freedom with 60 other countries in 2022, “A Declaration for the Future of the Internet” (Declaration).³⁶ The Declaration includes principles in the following categories (recognizing that they are “not legally binding but should rather be used as a reference for public policy makers”³⁷):

- Protection of Human Rights and Fundamental Freedoms
- A Global Internet
- Inclusive and Affordable Access to the Internet
- Trust in the Digital Ecosystem
- Multistakeholder Internet Governance³⁸

The principles include statements such as the following:

- Protect and respect human rights and fundamental freedoms across the digital ecosystem, while providing access to meaningful remedies for human rights violations and abuses, consistent with international human rights law.
- Refrain from blocking or degrading access to lawful content, services, and applications on the Internet, consistent with principles of Net Neutrality subject to applicable law, including international human rights law.
- Support digital literacy, skills acquisition, and development so that individuals can overcome the digital divide, participate in the Internet safely, and realize the economic and social potential of the digital economy.

- Refrain from using the Internet to undermine the electoral infrastructure, elections and political processes, including through covert information manipulation campaigns.
- Protect and strengthen the multistakeholder system of Internet governance, including the development, deployment, and management of its main technical protocols and other related standards and protocols.³⁹

But in addition to these proclamations about the internet, policy makers will need to make fundamental decisions about the metaverse and the question of meta-regulation.⁴⁰ What agency or agencies, if any, should be responsible for overseeing the metaverse? Is the appropriate regulatory approach “command and control,” or “hands-off,” or a stage in between? Should it be an *ex ante* or an *ex post* approach? Will the United States be able to coordinate with other nations on the development and/or regulation of the metaverse, or will there be a sham-bolic approach to such an important issue (as has been the case with privacy)?⁴¹

Eric Schmidt and Jared Cohen discussed the issue of the “balkanization of the Internet” a few years ago.⁴² They observed:

States will long for the days when they only had to think about foreign and domestic policies in the physical world. If it were possible to merely replicate these policies in the virtual realm, perhaps the future of statecraft would not be so complex. . . . This disparity between power in the real world and power in the virtual world presents opportunities for some

new or unappreciated actors, including small states looking to punch above their weight and would-be states with a lot of courage.⁴³

Admittedly, Schmidt and Cohen may have been thinking more about the internet of 2015 than the metaverse, but these international policies and concerns should apply with equal weight.

There is a variety of regulatory issues that need to be addressed in the context of the metaverse. For example, the issue of privacy already has attracted much attention from policy makers around the world in the context of the present internet. But what about privacy in the metaverse? Are the principles the same or different? California

Is the appropriate regulatory approach “command and control,” or “hands-off,” or a stage in between?



Representative Ro Khanna has collaborated with Sir Tim Berners-Lee on a so-called Internet Bill of Rights.⁴⁴ Should the following principles from their list be applied to the metaverse?

- Opt-In Consent (users' consent before data is used)
- Knowledge of Data Use (think Cambridge Analytica)
- Deleting Personal Data and Abusive Content (right to delete personal data)
- Security and Notification (expect companies to protect data)
- Portability and Interoperability (power of “network effects” versus allowing users to move data to different sites)
- Net Neutrality⁴⁵ (check on internet service providers (ISPs))
- Data Minimization for Internet Access (companies do not collect more data than needed)
- Multiple Providers and Platforms (goal: more ISPs and digital platforms)
- Preventing Unfair Data Discrimination (checking algorithms)
- Fiduciary Duty (companies that manage data should have responsibility to act in the users' best interests)⁴⁶

Privacy is but one of the critical planks of regulation to develop regarding the metaverse.

Which Agency?

Another foundational question is which agency or agencies should be involved in serving as the police on this “new beat.”⁴⁷

Federal Communications Commission (FCC)

The agency that immediately comes to mind to lead regulatory oversight of the metaverse is the FCC. It has had much experience with the development of telecommunications, broadband, and internet issues. This includes issues such as universal service, interoperability (think interconnection and number portability), and net neutrality. It is likely that such issues will become important to the development of the metaverse.

The FCC was created in 1934, replacing the Federal Radio Commission, which had been created in response to the “chaos”⁴⁸ in the radio broadcasting industry. In its early years, the FCC focused on the Bell System monopoly and development of broadcasting. Subsequent technological developments such as cable television (CATV) and broadband typically placed the FCC in

the position of playing catch-up. The FCC was forced to plug the gaps by developing rules based on making arguments such as “ancillary jurisdiction” and broad interpretations of the Communications Act’s “public interest” standards. Later, Congress would on occasion plug the gap by adding a new “title” to the Communications Act to cover CATV. Another example is that of the “what is it” questions surrounding “broadband” (i.e., telecommunications versus “enhanced information” service), which created industry delays and confusion for years.

The last substantive amendment to the Communications Act was the Telecommunications Act of 1996 (FTA 96), and that was eons ago in the technology timeline. FTA 96 did address some aspects of the internet, but is so far behind now that commentators are calling for a major update. FTA 96 clearly does not have any strong guidance for regulatory treatment of the metaverse.

That said, the FCC clearly does have experience with issues such as interconnection, which could arise in the metaverse. Interconnection has been a fundamental issue in telecommunications from the time the early Bell System refused to interconnect with other systems to the enshrining of the concept for all telecommunications carriers in FTA 96. Another relevant issue is number portability, which FTA 96 required to facilitate competition. In the metaverse, the idea of an avatar being “portable” from one platform to another will likely become important. And, although the battle over net neutrality has centered on platform providers/ISPs versus edge providers of content, the issue of net neutrality could arise in the metaverse depending upon the nature of the participants.

In the metaverse, the idea of an avatar being “portable” from one platform to another will likely become important.



Federal Trade Commission (FTC)

Another agency that is already addressing issues relevant to the competitive development of the metaverse is the FTC. Indeed, the FTC has started investigations and filed lawsuits versus Facebook/Meta.⁴⁹ This includes challenges to Meta’s pending acquisition of a firm called Within Unlimited (Within), which is a maker of VR equipment (to be discussed in more detail below).⁵⁰ The FTC is being admittedly aggressive in taking proactive measures involving “future” products/markets.

The FTC is an even older agency than the FCC. The FTC does not have jurisdiction over telecommunications

common carriers.⁵¹ But it does engage in issues touching the industry given its broad consumer protection role. The mission of the FTC is “. . . protecting the public from deceptive or unfair business practices and from unfair methods of competition through law enforcement, advocacy, research, and education.”⁵²

In the relevant area of privacy, the FTC is quite active.⁵³ Clearly, privacy will be a huge issue in the metaverse. The FTC brings actions against companies that do not live up to its promises to consumers on how it treats their personal information. In addition, the FTC has taken special steps to assure that children under 13 years of age do not share their personal information on the internet without the express approval of their parents (pursuant to the Children’s Online Privacy Protection Act in 1998).

The FTC does seem to be making an initiative to get ahead of some of the technology issues relevant to the metaverse. On February 17, 2023, the FTC announced that it is creating a new Office of Technology (OT) to “. . . strengthen the FTC’s ability to keep pace with technological challenges in the digital marketplace by supporting the agency’s law enforcement and policy work.”⁵⁴ The new office—OT—is intended to help the FTC’s mission by:

- strengthening and supporting law enforcement investigations and actions;
- advising and engaging with FTC staff and the Commission on policy and research initiatives; and
- engaging with the public and relevant experts to understand trends and to advance the Commission’s work.⁵⁵

Perhaps this OT will also focus on metaverse issues. In any event, recognizing that Europe is thought to be ahead of the United States in terms of privacy legislation, the FTC does have experience relevant to this issue for the metaverse. Even with the use of avatars, the data provided by the VR participant in their trips through the metaverse will likely be tracked and deemed valuable information for commercial purposes.

Department of Justice (DOJ)

The DOJ is likely to become involved in VR issues. Indeed, one could say that it has already begun to do

so.⁵⁶ The agency recently filed an antitrust case against Google regarding its digital advertising services (following a previous antitrust suit on Google’s digital search service).⁵⁷ The DOJ has filed criminal charges against Sam Bankman-Fried (ironic last name), primarily arising out of cryptocurrency activities, which almost certainly will play a role in the metaverse.⁵⁸ In addition, the DOJ helps protect the public by breaking up ransomware rings. It is not a stretch to think that such nefarious activities will take place in the metaverse.

Thus, as to the metaverse, should there be the traditional “tag team” of the FCC and FTC (sprinkled in with DOJ antitrust/criminal law enforcement) or the appearance of an entirely new “cop on the beat”?

“Digital Platform Agency”

Former FCC Chair Tom Wheeler and others have previously suggested that a new agency (i.e., a Digital Platform Agency) be developed to deal with emerging technology and platforms.⁵⁹ This raises practical questions: Where would the “expertise” come from? Is there time to develop such an agency? Is there an appetite to fund such an agency? One clear advantage of a new agency is that there would be no (or limited) pre-existing ties/relationships between incumbents and agency personnel. Wheeler’s basic vision for such an agency would be:

- Risk management rather than micromanagement: Rigid industrial-era, utility-style regulation is incompatible with today’s rapid pace of technological change. Regulation should be based on risk-targeted remedies focused on market outcomes.
- Restoration of common law principles: For hundreds of years, common law has required those providing services to anticipate and mitigate harmful effects (a “duty of care”), as well as provide access to essential services (a “duty to deal”). Oversight of Big Tech need do nothing more than reinstate such expectations.
- Agile regulation: In lieu of top-down dictates, the new agency should be the forum to involve the industry in developing enforceable behavioral standards similar to fire and building codes. Such codes introduce innovation-promoting agility to the oversight process while protecting consumers and competition.⁶⁰

The FTC does seem to be making an initiative to get ahead of some of the technology issues relevant to the metaverse.



Of course, as with many ideas in this space, there are contrary opinions. Lawrence Spiwak believes Wheeler’s proposal is a “bad idea.”⁶¹ Spiwak argues that the desired framework of Wheeler’s proposal would give such a new agency “broad and unchecked regulatory powers over the entire Internet Ecosystem—including both tech platforms and Internet Service Providers alike.”⁶²

Or, should the metaverse be left to self-regulation? We’ve seen self-regulation or “industry” regulation in other areas in terms of setting standards or codes of conduct. Meta has even previously utilized an “independent Oversight Board” to rule on speech decisions (think Trump ban). Ruby O’Kane questions the self-regulation approach:

... platform self-regulation is not “wholly public spirited.” The “economic logic of advertiser-driven social media,” requires continuous expansion of either membership or user attention often measured as time spent on the platform. This dictates that platforms constantly search for “new opportunities for profits and property accumulation that can only be achieved through shutting down or circumscribing” speech. Self-regulation creates opaque normative systems of speech governance that are informed by the idiosyncratic business interests and models of platforms, yet are presented as fundamentally based in broader social values and norms.⁶³

The question of which, if any, agency should have metaverse oversight responsibilities should not be overlooked. As Benjamin and Speta note, these “constitutive” questions are important to resolve.⁶⁴ This is true even when dealing with VR. But let’s move on from this hypothetical agency to a real agency taking real action involving the metaverse.

FTC vs. Meta and Within Unlimited

Let’s delve a bit more into the FTC’s recent challenge to Meta’s acquisition of Within Unlimited. The federal preliminary injunction case went before Judge Edward Davila.⁶⁵ Within’s big product is “Supernatural,” which offers VR workouts and set to music in exotic locations (in contrast with the not-so-exotic local gym).

The FTC’s basic argument centered on Meta being really big, as in “one of the largest technology companies

in the world.”⁶⁶ Meta has already invested and plans to invest billions into the metaverse, or VR. Meta has been on a “campaign to conquer VR” since 2014, according to the FTC.⁶⁷ Meta has already made numerous acquisitions, such as Oculus (a VR headset manufacturer), followed by Meta Quest 2, and the Meta Quest Store distributes VR platform apps, including the popular one “Beat Saber.”⁶⁸ (Meta acquired Beat Saber when it purchased the firm, Beat Games, in 2019.)⁶⁹ These attributes give Meta insight into all phases of VR—“the *entire* ecosystem”—and ability to exploit its network effects.⁷⁰

In short, the FTC claimed that the acquisition would substantially lessen competition on the VR-dedicated fitness apps market (versus other fitness/exercise equipment). Setting aside the question on the narrowness of this product market definition, the complaint is unique as to its basis of possible “future harm” from a *possible future market* within the future VR universe. But the FTC claims that “Meta would be one step closer to its ultimate goal of owning the entire ‘Metaverse.’”⁷¹

In order to succeed on its Section 13(b) ⁷² claim for relief, the FTC needed to prove the merger violates Section 7 of the Clayton Act, the effect of which “may be substantially to lessen competition or tend to create a monopoly.”⁷³

The FTC’s filing in court was a (typical) step taken so the merger would not be consummated before the FTC completes its administrative complaint proceeding pending before the FTC.

In December 2022, the parties appeared for a hearing on the injunction before Judge Davila. Meta’s lawyer argued in his opening statement that the FTC is attempting to establish a precedent that:

... if you’re big, you’ve got an interest in something and we think you’d rather ought to build it, we’re going to stop you from buying it and we’re going to make you build it.⁷⁴

Mark Zuckerberg testified that there was “almost no chance” Meta would have been able to develop this project due to a deteriorating business environment.⁷⁵ Zuckerberg did draw some attention in this question-and-answer colloquy when asked if Facebook was “trying to shape the future of technology” as a purveyor of the metaverse under its new name. Zuckerberg replied, “Yes, that’s a fairly broad statement, but yes.”⁷⁶

The question of which, if any, agency should have metaverse oversight responsibilities should not be overlooked.



Meta agreed to delay closing the deal until January 31, 2023, or the first business day after the judge issued his ruling, whichever came first.⁷⁷ Perhaps not surprisingly, Judge Davila issued his order on January 31, and denied the FTC's motion for preliminary injunction.⁷⁸ The court explained that it was “not tasked with “mak[ing] a final determination on whether the proposed merger violates Section 7, but rather [with making] only a preliminary assessment of the merger's impact on competition.”⁷⁹

But the order was not a total bust for the FTC, as Judge Davila found that the FTC had supported its proposed definition of the product market as “. . . consisting of VR dedicated fitness apps, meaning VR apps ‘designed so users can exercise through a structured physical workout in a virtual setting.’”⁸⁰ The FTC also won the battle of defining the geographic market.⁸¹ Judge Davila found that “. . . the relevant antitrust market for the analysis of the competitive impacts of Meta's acquisition of Within is VR dedicated fitness apps in the United States.”⁸²

The court was not overly impressed with the economic expert testimony on the interesting issue of “nascency” of the VR fitness app market, finding that “. . . the Court will give limited weight to the fact that the VR dedicated fitness market may be characterized as a nascent market and focus instead on the underlying market indicators.”⁸³ More importantly, the court found that because “the FTC has not satisfied the other elements of the potential competition theories they have brought (i.e., actual potential competition and perceived potential competition), the Court need—and does not—decide whether the Defendants' showing here is sufficient to rebut the FTC's prima facie case on substantial concentration.”⁸⁴ This included the court not being persuaded by the size of Meta alone as determinative of its likelihood to enter the VR fitness app market independently of an acquisition (finding it lacked certain expertise, etc.).⁸⁵

The FTC also argued for an injunction under a Section 7 “perceived potential competition theory.”⁸⁶ Specifically, the FTC argued that the Meta acquisition would dissuade competitors due to Meta's very presence, even if just on the “fringes of the market.”⁸⁷ In short, the FTC lost the overall skirmish before Judge Davila due, in part, to a finding that “. . . the objective evidence does not support a reasonable probability that firms in the relevant market perceived Meta as a potential entrant.”⁸⁸

On February 8, 2023, Meta promptly announced that it had completed the merger with Within, stating that “Meta has complied with all regulatory requirements for closing.”⁸⁹

Of course, this still left the agency case pending for hearing. However, on February 10, a couple of days before the scheduled administrative law judge hearing, the matter was stayed by agreement of the parties. A couple of weeks later, on February 24, 2023, the FTC made a final decision to not further challenge the merger (it has decided not to appeal Judge Davila's decision).⁹⁰ This decision was not surprising as it seemed unlikely the FTC would continue to fight the merger after Judge Davila's ruling. But matters involving VR raise interesting possibilities. Indeed, we have seen the FTC attempt to resurrect challenges to previously closed deals (i.e., “unwind”), such as the Facebook and Instagram deal.⁹¹ Nonetheless, this case represented a tough loss for the agency.

But the FTC will find some solace in the loss, given Judge Davila's ruling that the FTC's case was:

. . . premised on a valid legal theory—namely, that the transaction could lessen competition because the industry would benefit from Meta's independent entry into the market. Meta's lawyers had argued that this theory, known as the “actual potential competition” doctrine and which has never been explicitly endorsed by the Supreme Court, is invalid.⁹²

Some argue that antitrust law needs to be updated to prepare for the metaverse and related merger and competitive activity, including, for example, how to define the market.⁹³

This result may bolster that position.

The FTC received serious criticism for pursuing this case against Meta.⁹⁴ It remains to be seen if this criticism deters future efforts by the agency in the VR space.

What Will Be the Psycho-Physical Effects of the Metaverse?

As seen above, there are numerous issues to be resolved by policy makers during the metaverse rollout and beyond. One critical issue involving the health and welfare of children needs to be addressed sooner rather than later under any regulatory regime. This issue will be the potential psycho-physical effects⁹⁵ of the metaverse on children (or people of all ages frankly). We have seen numerous reports about the impact of social

Some argue that antitrust law needs to be updated to prepare for the metaverse and related merger and competitive activity.




media on children and young adults. Issues range from bullying with severe results to developing body image issues and eating disorders. These issues are causing serious mental and physical health issues for too many individuals.

A recent study⁹⁶ looked at the connection between adolescents' (sixth and seventh graders) frequency of checking behaviors on three social media platforms and longitudinal changes in functional brain development. The study found that participants who engaged in habitual checking of social media showed a distinct neurodevelopmental trajectory within regions of the brain comprising the affective salience, motivational, and cognitive control networks in response to anticipating social rewards and punishments, compared with those who engaged in nonhabitual checking behaviors.⁹⁷ In short, this habitual checking behavior could have implications for the psychological adjustment of adolescents.

The Metaverse Challenge

The challenge of coming up with a meta-regulation game plan is already upon us. A pessimistic (perhaps realistic) view is that policy makers will not be able to reach consensus on such a game plan. Policy making in this general area tends to be reactive. Hopefully, we will not be faced with the chaos that occurred early in the radio broadcasting era.⁹⁸

An optimistic view is that consensus, at least on the basic constitutive questions of Meta-regulation, can be reached as has been done previously with the respect to the Internet. There are arguments that existing regulations need to be updated to address the metaverse and some suggest that new regulations are needed.⁹⁹ There are some who argue we should not regulate the metaverse because we are uncertain as to what it is and what it will be.¹⁰⁰ I do not believe the “let’s see how this goes and worry about it later” approach is a prudent path.

In any event, the metaverse is coming at us fast. We have an opportunity to prepare, and we shouldn’t want to miss it. 

Endnotes

1. Moore’s Law holds that the number of transistors on a chip double roughly every two years. ARNOLD THACKRAY, DAVID C. BROCK & RACHEL JONES, *MOORE’S LAW: THE LIFE OF GORDON MOORE, SILICON VALLEY’S QUIET REVOLUTIONARY* (Basic Books 2015). The newer Huang’s Law describes how the silicon chips that power artificial intelligence more than double in performance every two years, outpacing Moore’s Law. Christopher Mims, *Huang’s Law Is the New Moore’s Law, and Explains Why Nvidia Wants Arm*, WALL ST. J. (Sept. 26, 2020), <https://www.wsj.com/articles/huangs-law-is-the-new-moores-law-and-explains-why-nvidia-wants-arm-11600488001>.

2. I am using the term *metaverse* interchangeably with *virtual reality*. The concepts of “augmented reality” or “mixed

reality” and “brain-computer interface” are subsumed in this discussion but admittedly offer different experiences. And the term *metaverse* is not to be confused with *multiverse*, which is the pre-big bang alternative universe “theory.” James Carter, *Metaverse vs Multiverse: How to Tell Apart the ‘Parallel Universe’ Concepts We Can’t Stop Talking About*, FORBES (Feb. 9, 2022), <https://www.forbes.com/sites/jamiecartereurope/2022/02/07/metaverse-vs-multiverse-how-to-tell-apart-the-two-mind-bending-concepts-we-cant-stop-talking-about/?sh=2480f08b78cc>. I do not include artificial intelligence (AI) in the term *metaverse*, although one can see a possible overlap between virtual reality and AI. In any case, I do agree with Elon Musk that the need to regulate AI is an issue that needs to be seriously considered. Q.ai—Powering a Personal Wealth Movement, *Elon Musk Has Issued a Stark Warning over AI. This Isn’t His First Time*, FORBES (Feb. 17 2023), <https://www.forbes.com/sites/qai/2023/02/16/elon-musk-has-issued-a-stark-warning-over-ai-this-isnt-his-first-time/?sh=1778f8416509>.

3. In this article, meta-regulation does not include a review of all possible laws—that is, financial, labor, and criminal issues (e.g., sexual harassment), including cryptocurrency. Pin Lean Lau, *The Metaverse: Three Legal Issues We Need to Address*, CONVERSATION (Sept. 13, 2022), <https://theconversation.com/the-metaverse-three-legal-issues-we-need-to-address-175891>.

Instead, meta-regulation is concerned with the possible “rules of the road” for the development and ongoing operation of the metaverse. The reader should think more in terms of the regulation associated with issues such as interconnection, consolidation, unbundling, net neutrality, and privacy in the development of the various previous communications platforms. The term *meta-regulation* would encompass analyzing the appropriate level of regulation of the various layers involved in the metaverse (from facilities to software to hardware and applications). There are other articles available for those who are interested in issues such as securities in the virtual world. See Shannon L. Thompson, *Securities Regulation in a Virtual World*, 16 UCLA ENT. L. REV. 89 (2009).

4. *That’s So Meta: From Prefix to Adjective*, MERRIAM-WEBSTER DICTIONARY, [https://www.merriam-webster.com/words-at-play/meta-adjective-self-referential_\(last visited Feb. 1, 2023\)](https://www.merriam-webster.com/words-at-play/meta-adjective-self-referential_(last%20visited%20Feb.%201,%202023)).

5. Noam Cohen, *Meta-Musings*, NEW REPUBLIC (Sept. 5, 1988), <https://newrepublic.com/article/164217/meta-musings>.

6. The use of *verse* with *meta* seems to be a replacement for *universe*, which refers to the whole body of things, or cosmos, perhaps a closed system. *Universe*, MERRIAM-WEBSTER DICTIONARY, [https://www.merriam-webster.com/dictionary/universe_\(last visited Feb. 15, 2023\)](https://www.merriam-webster.com/dictionary/universe_(last%20visited%20Feb.%2015,%202023)).

7. NEAL STEPHENSON, *SNOW CRASH 24* (Bantam Books 2003) (1992). Others have a somewhat pessimistic view: “In reality, it may be the case that any real ‘metaverse’ would be little more than some cool VR games and digital avatars in Zoom calls, but mostly just something we still think of as the internet.” Eric Ravenscraft, *What Is the Metaverse, Exactly?*, WIRED (Apr. 25 2022), <https://www.wired.com/story/what-is-the-metaverse>.

8. *New Developments in Computer Technology: Virtual Reality: Hearing Before the Subcomm. on Sci., Tech., & Space*

of the S. Comm. on Com., Sci., & Transp., 101st Cong. (1991) (S. Hearing 102-553) [hereinafter Hearing].

9. *Id.* at 1.

10. *Id.* at 17 (testimony of Dr. Frederick P. Brooks Jr.) (emphasis in original).

11. *Id.* at 64.

12. MATTHEW BALL, *THE METAVERSE: AND HOW IT WILL REVOLUTIONIZE EVERYTHING* 33 (Liveright Publ'g Corp. 1st ed. 2022). Ball makes excellent observations—for example, that “3D” is an important requirement for the metaverse.

13. *What Is the Metaverse?*, META, <https://about.meta.com/what-is-the-metaverse> (last visited Feb. 18, 2023).

14. LING ZHU, CONG. RESEARCH SERV., R47224, *THE METAVERSE: CONCEPTS AND ISSUES FOR CONGRESS* 4 (2022), https://www.everycrsreport.com/files/2022-08-26_R47224_b82b1726f7dda16269e5946105d78c6083697478.pdf. The report cited some federal legislation that was said to be “metaverse-related” (e.g., H.R. 4461, S. 1260, H. 4609, S. 2918, etc.); but, in general, no action was taken after introduction of these bills. See *id.* app.

15. *Avatar* is a Sanskrit word meaning “descent” and a Hindu concept of incarnation and is not used to mean an electronic image that a computer user may manipulate. *Avatar*, MERRIAM-WEBSTER DICTIONARY, <https://www.merriam-webster.com/dictionary/avatar> (last visited Feb. 18, 2023).

16. This may be more likely than one imagines, as evidenced by Elon Musk’s Twitter polls that result in millions of votes.

17. Cory Ondrejka, *Escaping the Gilded Cage: User Created Content and Building the Metaverse*, 49 N.Y. L. SCH. L. REV. 81, 100 (2004).

18. *Id.* at 101.

19. NOAM COHEN, *THE KNOW-IT-ALLS: THE RISE OF SILICON VALLEY AS A POLITICAL POWERHOUSE AND SOCIAL WRECKING BALL* (New Press 2017). Cohen offers insightful snapshots of key industry players (several with linked backgrounds), whom he lumps together as “know-it-alls.”

20. Many technologies have a slow initial acceptance rate, from cameras to automobiles to televisions.

21. Ball states that the metaverse may someday be experienced without a requirement to wear goggles. BALL, *supra* note 12.

22. Predictions on the future of the metaverse vary widely. Sara Atske, *The Metaverse in 2040*, PEW RSCH. CTR. (June 30, 2022), <https://www.pewresearch.org/internet/2022/06/30/the-metaverse-in-2040>.

23. Please note that I am not talking about governance models of virtual worlds controlled by a person or group with unilateral control over their operation, in contrast to worlds that are self-governed by users as described by Ball. BALL, *supra* note 12. I am talking about whether and to what extent duly elected government officials and their lawful representatives (e.g., agencies) should exercise regulatory authority over such virtual worlds (i.e., the metaverse).

24. ADAM D. THIERER, *PERMISSIONLESS INNOVATION: THE CONTINUING CASE FOR COMPREHENSIVE TECHNOLOGICAL FREEDOM* 105 (Mercatus Ctr. at George Mason Univ. rev. ed. 2016).

25. *Id.* at 107.

26. Thierer favorably points to Section 230 as a good law that helped the internet to flourish. *Id.* at 14. As discussed in my article, Section 230 is under critical attack from both sides of the political spectrum. Joe Cosgrove Jr., *Section 230: Twenty-Six Words That Created Controversy*, 61:2 INFRASTRUCTURE 3. (2022).

27. RICHARD EPSTEIN, *SIMPLE RULES FOR A COMPLEX WORLD*, (Harvard University Press 1995).

28. THIERER, *supra* note 26, a127.

29. STUART MINOR BENJAMIN & JAMES B. SPETA, *INTERNET AND TELECOMMUNICATION REGULATION* 20 (Carolina Acad. Press 2019).

30. *Id.* at 18. Under “public choice” theory, all players (legislators, regulators, industry, etc.) act to advance their own goals.

31. Joe Biden, Opinion, *Republicans and Democrats, Unite Against Big Tech Abuses*, WALL ST. J. (Jan. 12, 2023), <https://www.wsj.com/articles/unite-against-big-tech-abuses-social-media-privacy-competition-antitrust-children-algorithm-11673439411>.

32. Hearing, *supra* note 8, at 10.

33. *Id.* at 13.

34. CLINTON ADMIN., *FRAMEWORK FOR GLOBAL ELECTRONIC COMMERCE* (1997), <https://clintonwhitehouse4.archives.gov/WH/New/Commerce/read.html>.

35. ORG. FOR ECON. CO-OPERATION & DEV., *DRAFT RECOMMENDATION OF THE COUNCIL ON PRINCIPLES FOR INTERNET POLICY MAKING* 7–8 (Nov. 29, 2011), [https://one.oecd.org/document/C\(2011\)154/en/pdf](https://one.oecd.org/document/C(2011)154/en/pdf).

36. U.S. DEP’T OF STATE, *A DECLARATION FOR THE FUTURE OF THE INTERNET* (May 23, 2022), <https://www.state.gov/declaration-for-the-future-of-the-internet>.

37. *Id.* at 2.

38. *Id.* at 2–3.

39. *Id.* at 1–3. Note that there are other principles included in the Declaration.

40. Some suggest at least establishing a metaverse code of conduct. Martin Boyd, *Regulating the Metaverse: Can We Govern the Ungovernable?*, FORBES (May 18, 2022), <https://www.forbes.com/sites/martinboyd/2022/05/16/regulating-the-metaverse-can-we-govern-the-ungovernable/?sh=4b059f901961>.

41. Clearly, we have seen differences in approaches between Europe and the United States (and even among the states of the United States, e.g., California) on internet-related issues such as privacy and antitrust. The above-described Declaration stated that it “expects to contribute to existing processes in the UN system, G7, G20, the Organisation for Economic Co-operation and Development, the World Trade Organization, and other relevant multilateral and multistakeholder fora, the Internet Corporation for Assigned Names and Numbers, Internet Governance Forum, and Freedom Online Coalition.” U.S. DEP’T OF STATE, *supra* note 35, at 3. One can see that this takes a huge commitment to multiorganizational coordination. Privacy or data collection with regard to individuals may be one of the chief concerns as the metaverse develops. Louis Rosenberg, *Regulate the Metaverse*, MEDIUM (Aug. 6, 2022), <https://medium.com/predict/regulating-the-metaverse-7c893ed00865>.

42. ERIC SCHMIDT & JARED COHEN, *THE NEW DIGITAL AGE: TRANSFORMING NATIONS, BUSINESSES, AND OUR LIVES* 85 (Vintage Books 2014). The concern is that nations will impose rules that will change the global internet into a connected series of nation-state networks.

43. *Id.* at 120.

44. RO KHANNA, *DIGNITY IN A DIGITAL AGE: MAKING TECH WORK FOR ALL OF US* 155 (Simon & Schuster 2022).

45. For a deeper dive on Net Neutrality, see Joe Cosgrove Jr., *Net Neutrality: Take 4!*, 59:2 *INFRASTRUCTURE* 1 (2020)

46. KHANNA, *supra* note 46, at 155-169.

47. The “police on the beat” analogy has been used throughout regulation in the broadcast and telecommunications space. *See, e.g.*, THIERER, *supra* note 26, at 63 (statement of Senator Dill regarding the Radio Act of 1927: “Of one thing I am absolutely certain. Uncle Sam should not only police this ‘new beat’ . . .”; Press Release, Fed. Trade Comm’n, Joint Statement of Acting FTC Chairman Maureen K. Ohlhausen and FCC Chairman Ajit Pai on Protecting Americans’ Online Privacy (Mar. 1, 2017), <https://www.ftc.gov/news-events/news/press-releases/2017/03/joint-statement-acting-ftc-chairman-maureen-k-ohlhausen-fcc-chairman-ajit-pai-protecting-americans> (publicizing the joint statement of Ajit Pai and Maureen Ohlhausen about the FTC’s role as an “effective cop” on “the beat” regarding privacy rules).

48. Herbert Hoover recognized that regulatory controls were needed to address the “chaos” in the nascent radio broadcasting industry. BENJAMIN & SPETA, *supra* note 31, at 61.

49. First Amended Complaint, *FTC v. Facebook*, Case No. 1:20-cv-03590-JEB (D.C. Cir. filed Aug. 19, 2021), <https://storage.courtlistener.com/recap/gov.uscourts.dcd.224921/gov.uscourts.dcd.224921.75.1.pdf> (seeking to force Facebook to divest WhatsApp and Instagram). The FTC also filed actions at the agency and in federal court against Meta (and Zuckerberg), trying to block Meta’s acquisition of Within (maker of VR equipment). Complaint for a Temporary Restraining Order and Preliminary Injunction Pursuant to Section 13(b) of the Federal Trade Commission Act, *Fed. Trade Comm’n v. Meta Platforms, Inc.*, No. 3:22-CV-04325 (N.D. Cal. July 27, 2022) [hereinafter *Complaint*]; Amended Complaint, *In re Meta Platforms*, Docket No. 9411 (Oct. 13, 2022). The FTC had scheduled an evidentiary hearing in its docket for Meta to show cause why an order should not be entered against the proposed merger. But the proceeding was stayed following Judge Davila’s ruling in the Meta/Within case, discussed in detail *infra*. Order Withdrawing Matter from Adjudication, *In re Meta Platforms*, Docket No. 9411 (Feb. 10, 2023).

50. Meta and Within signed an agreement to merge on October 22, 2021.

51. There is an active debate on whether large digital platforms should be deemed and treated as “common carriers,” or “utilities,” like the telephone companies of the past. There are certainly arguments to be made in this regard given the size and scope and network effects of such large platforms. Such a designation would likely increase the role and authority of the FCC and state utility commissions over the metaverse. *See* Eugene

Volokh, *Treating Social Media Platforms Like Common Carriers?*, 1 J. FREE SPEECH L. 377 (2021), <https://ssrn.com/abstract=3913792>.

52. *Mission*, FED. TRADE COMM’N, <https://www.ftc.gov/about-ftc/mission> (last visited Mar. 5, 2023).

53. *Privacy and Security Enforcement*, FED. TRADE COMM’N (July 16, 2021), <https://www.ftc.gov/news-events/topics/protecting-consumer-privacy-security/privacy-security-enforcement>.

54. Press Release, Fed. Trade Comm’n, *FTC Launches New Office of Technology to Bolster Agency’s Work* (Feb. 17, 2023), <https://www.ftc.gov/news-events/news/press-releases/2023/02/ftc-launches-new-office-technology-bolster-agencys-work>.

55. *Id.*

56. Press Release, U.S. Dep’t of Just., *Owner of Technology Companies Arrested for Alleged \$45 Million Investment Fraud Scheme Involving over 10,000 Victims* (June 29, 2022), <https://www.justice.gov/opa/pr/owner-technology-companies-arrested-alleged-45-million-investment-fraud-scheme-involving-over>.

57. Patrick Hilsman, *Department of Justice Sues Google in Antitrust Action*, UPI (Jan. 24, 2023), https://www.upi.com/Top_News/US/2023/01/24/google-antitrust-lawsuit-department-of-justice/7771674593977.

58. Fran Velasquez, *Bankman-Fried \$250m Bond Is a ‘Joke,’ Claims Securities Lawyer*, YAHOO!, <https://finance.yahoo.com/news/bankman-fried-250m-bond-joke-225147279.html>.

59. Tom Wheeler et al., *New Digital Realities; New Oversight Solutions in the U.S.*, SHORENSTEIN CTR. ON MEDIA, POL. & PUB. POL’Y (Aug. 2020), https://shorensteincenter.org/wp-content/uploads/2020/08/New-Digital-Realities_August-2020.pdf.

60. *Id.* at 6, 41.

61. Lawrence J. Spiwak, *A Poor Case for a “Digital Platform Agency”* (Mar. 9, 2021), <https://ssrn.com/abstract=3812383>.

62. *Id.*

63. Ruby O’Kane, *Meta’s Private Speech Governance and the Role of the Oversight Board: Lessons from the Board’s First Decisions*, 25 *STAN. TECH. L. REV.* 167, 171 (2022).

64. BENJAMIN & SPETA, *supra* note 31, at 22.

65. The FTC authorized the lawsuit in federal court as an attempt to block the proposed merger pending resolution of the agency case challenging the merger.

66. Complaint, *supra* note 51, at 3.

67. *Id.*

68. In Beat Saber, the player uses a virtual saber in a virtual world to slash “beats” of music. *Id.* at 10.

69. Meta, like other larger digital platforms (e.g., Google, Amazon), has made numerous acquisitions. In the area of VR content, Meta has recently acquired Sanzaru Games, Ready at Dawn Studios, BigBox VR, Unit 2 Games, and Twisted Pixel.

70. Complaint, *supra* note 51, at 4 (emphasis in original).

71. *Id.* at 6.

72. 15 U.S.C. § 53(b)g.

73. Complaint, *supra* note 51, at 6.

74. Nic Coury, *Judge Hears FTC’s Bid to Block Meta from Acquiring Virtual-Reality App Maker*, WALL ST. J. (Dec. 8, 2022), <https://www.wsj.com/articles/judge-to-hear-ftcs-bid-to-block-meta-from-acquiring-virtual-reality-app-maker-11670503140>.

75. Jeff Horwitz & Salvador Rodriguez, *Meta CEO Mark Zuckerberg Testifies in FTC Case to Block Virtual-Reality Deal*, WALL ST. J. (Dec. 20, 2022), https://www.wsj.com/articles/meta-ceo-mark-zuckerberg-testifies-in-ftc-case-to-block-virtual-reality-deal-11671556323?mod=tech_lead_pos11.

76. Jon Swartz, *Mark Zuckerberg Takes Stand in Meta FTC Trial, Admits 'Trying to Shape the Future of Technology,'* MARKETWATCH (Dec. 20, 2022), <https://www.marketwatch.com/story/mark-zuckerberg-takes-stand-in-meta-ftc-trial-admits-trying-to-shape-the-future-of-technology-11671572991>.

77. *Id.*

78. The court also denied Meta's motion to dismiss. Order Denying Plaintiff's Motion for Preliminary Injunction, Fed. Trade Comm'n v. Meta Platforms Inc., No. 5:22-cv-04325-EJD (N.D. Cal. Jan. 31, 2023) [hereinafter Order], <https://storage.courtlistener.com/recap/gov.uscourts.cand.398508/gov.uscourts.cand.398508.549.0.pdf> (redacted version).

79. *Id.* at 15 (citing Fed. Trade Comm'n v. Warner Commc'ns Inc., 742 F.2d 1156, 1162 (9th Cir. 1984)).

80. *Id.* at 18–19. Meta has argued that the FTC's proposed market was far too narrow and excluded the numerous ways that people may exercise. The court did not strongly disagree but stated that dedicated VR fitness apps are an “economically distinct submarket” as recognized under the analysis established in *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962). Order, *Meta Platforms*, No. 5:22-cv-04325-EJD, at 21.

81. *Id.* at 32 (“The relevant geographic market is the ‘area of effective competition where buyers can turn for alternate sources of supply:’” (quoting *Saint Alphonsus Med. Ctr.–Nampa Inc. v. St. Luke's Health Sys., Ltd.*, 778 F.3d 775, 784 (9th Cir. 2015))).

82. *Id.* at 33.

83. *Id.* at 37.

84. *Id.* at 39 (citing *United States v. Siemens Corp.*, 621 F.2d 499, 506 (2d Cir. 1980)).

85. *Id.* at 43–48.

86. *Id.* at 60.

87. *Id.*

88. *Id.* at 64.

89. Jason Rubin, *Within Joins Meta*, META (updated Feb. 8, 2023), <https://www.meta.com/blog/quest/within-to-join-meta>.

90. Diane Bartz, *FTC Withdraws from Adjudication in Fight with Meta over Within Deal*, REUTERS (Feb. 10, 2023), <https://www.reuters.com/markets/deals/ftc-withdraws-fight-with-meta-over-within-deal-adjudication-2023-02-10>; Dan Papsun, *Meta's VR Buy Gets Reprieve from FTC's In-House Challenge (1)*, BLOOMBERG L. (Feb. 10, 2023), <https://news.bloomberglaw.com/antitrust/ftc-withdraws-in-house-proceedings-challenging-meta-within-deal>; Jan Wolfe, *FTC Abandons Challenge to Meta's*

Acquisition of Virtual-Reality Startup, WALL ST. J. (Feb. 24, 2023), https://www.wsj.com/articles/ftc-abandons-challenge-to-metas-acquisition-of-virtual-reality-startup-6ee5e767?st=e363f7vcmphwej2&reflink=desktopwebshare_permalink.

91. Makena Kelly & Russell Brandom, *Federal Court Dismisses FTC's Bid to Unwind Instagram from Facebook*, VERGE (June 28, 2021), <https://www.theverge.com/2021/6/28/22554476/ftc-facebook-instagram-antitrust-case-whatsapp-federal-court>.

92. Wolfe, *supra* note 92.

93. David Bosco, *Replay: Regulate the Metaverse*, COMPETITION F. (Dec. 14, 2022), <https://competition-forum.com/replay-regulate-the-metaverse>.

94. Andy Kessler, Opinion, *The FTC Can't See the Future*, WALL ST. J. (Feb. 6, 2023), <https://www.wsj.com/articles/the-ftc-cant-see-the-future-activision-microsoft-lina-khan-antitrust-xbox-gaming-consoles-video-games-11675628406>; Editorial, *Lina Khan Chalks Up Another Defeat*, WALL ST. J. (Feb. 7, 2023), <https://www.wsj.com/articles/federal-trade-commission-lina-khan-federal-judge-meta-within-unlimited-virtual-reality-11675723824>.

95. The credit for the phrase *psycho-physical effect*, as well as the expression of concern for VR in this article, is due to Roman Dremluga, Olga Dremluga & Andrei Iakovenko, *Virtual Reality: General Issues of Legal Regulation*, 13 J. POL. & L. 75 (2020).

96. Maria T. Maza et al., *Association of Habitual Checking Behaviors on Social Media with Longitudinal Functional Brain Development*, JAMA PEDIATRICS (Jan. 3, 2023), <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2799812?guestAccessKey=7fedb432-3c46-496d-be6b-e9b7394a71f2>; Ellen Barry, *Social Media Use Is Linked to Brain Changes in Teens, Research Finds*, N.Y. TIMES (Jan. 3, 2023), <https://www.nytimes.com/2023/01/03/health/social-media-brain-adolescents.html>; cf. Allan Smith, *Sen. Josh Hawley Wants to Create a Legal Age for Social Media*, NBCNEWS.COM (Feb. 7, 2023), <https://www.nbcnews.com/politics/congress/sen-josh-hawley-wants-create-legal-age-social-media-rcna69045>.

97. Maza et al., *supra* note 98.

98. BENJAMIN & SPETA, *supra* note 50.

99. Juan Londoño, *Will Metaverses Require New Regulations?*, AM. ACTION F. (Feb. 9, 2022), <https://www.americanactionforum.org/insight/will-metaverses-require-new-regulations>.

100. Mark Jamison, *The Federal Trade Commission Should Not Seek to Regulate the Metaverse*, AM. ENTER. INST. (Jan. 31, 2022), <https://www.aei.org/technology-and-innovation/the-ftc-should-not-seek-to-regulate-the-metaverse>.