

Metaverse Primer: A Whole New World

Leeza Garber, Esq.

Founder, Leeza Garber, Esq. Consulting LLC

Lecturer, The Wharton School

The history of the Metaverse begins with science fiction. In 1992, writer Neal Stephenson coined the term “Metaverse” in his sci-fi novel [Snow Crash](#), wherein the virtual reality world was an escape from a dystopia. Now, thirty years later, the Metaverse has become a multi-billion-dollar industry, one which big tech envisions as the successor to the Internet. This immersive, three-dimensional virtual world is already changing how brands interact with consumers, how factories manage supply chains, and how we socialize. As with any other new technology, however, the law is struggling to keep pace.

1. The Metaverse Landscape

1.1 Background

The variety of companies offering Metaverse-related products, platforms, and pitches is staggering. The big tech titans have been pouring money into this new virtual reality field for years: in addition to promising [billions of dollars in Metaverse-related investment](#) through the next decade, Facebook even rebranded as “Meta” to highlight the new commitment. Microsoft’s CEO [recently stated](#) that it will become commonplace for all of us to meet in the Metaverse as avatars or holograms.

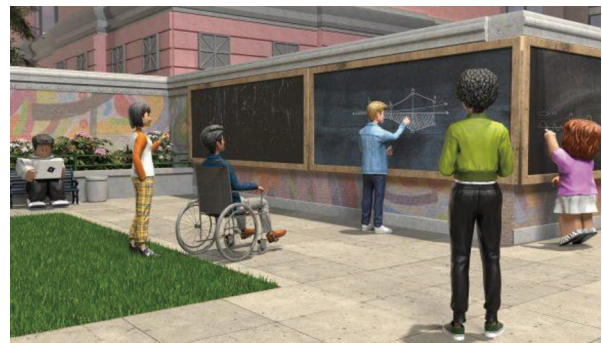
The global Metaverse market was valued at [\\$61 billion in 2021](#), and is estimated to grow to a staggering [\\$824.53 billion by 2030](#). Much of these statistics hinge on global adoption – and so far, despite critics, eager consumers appear to be diving into this new world of interaction, entertainment, and business. [Gartner has found](#) that by 2026, 25% of people will be spending at least one hour a day in the Metaverse.

1.2 Metaverse Platforms and Access

There is no singular “Metaverse,” but rather, a variety of platforms that can port you to the immersive, online

experience. The largest players in the space include The Sandbox, Decentraland, and Roblox, but there are many others also competing for users. While each Metaverse platform is slightly different, the concepts are similar: avatars can interact, buy and trade goods, and participate in various activities – and some allow you to build your own worlds too.

Roblox holds a high rank, with an [estimated 54.7 million daily users that spend 42 billion hours on the platform annually](#). The Roblox platform has been popular with major brands for partnerships as well, offering stores, entertainment, and experiences with Gucci, Chipotle, McClaren, Nike, and Spotify. Each brand has sought to engage with the Roblox user base to build recognition and relationships.



Source: PCGamesN

Figure1: The Roblox Metaverse

The other half of entering the Metaverse is the gadgets that help create the immersive experience. The most common tech that companies offer, and that consumers have purchased, includes headsets and controllers. These gadgets allow users to truly enter the Metaverse and navigate virtual reality; they track eye and finger movement to create a seamless transition through the Metaverse platforms.



Source: PTC

Figure2: Augmented Reality (AR) device for industry use

A variety of companies, including Meta, HTC, and HP, offer these common devices, but many are also experimenting with more complex tech to allow for an even further immersive experience. Prototype gadgets like haptic gloves, vests, and even full body suits provide a glimpse into how companies are thinking about creating thoroughly immersive ties to the Metaverse, allowing users to feel completely enveloped in their virtual reality.

1.3 The Industrial Metaverse

One of the significant areas of growth for the Metaverse is the aptly-termed Industrial Metaverse, which covers how factories, supply chains, and physical assets can be digitally replicated to allow for enhanced and efficient remote review. There are already major companies using the concept of the Industrial Metaverse to better understand problems on their factory floors without setting foot inside, to best design aircraft before purchasing raw materials, and to simulate thousands of test conditions less expensively and more effectively.

After pandemic-related supply chain problems, [Kraft decided to use digital twins](#) in the Industrial Metaverse to better understand how they could pivot operations to meet consumer demand. “Digital twins” are virtual versions of an object, structure, or complete factory - created in the Metaverse as exact replicas.



Source: Hitachi Energy

Figure3: Digital twins

The use of digital twins allows companies a bird’s eye view of a new car model, production pipeline or even entire facility without leaving the computer screen. [BMW](#) is in the process of digitally scanning its vehicle plants all over the world in order to overhaul operations for increased efficiency with digital twins in the Metaverse.

It’s not just the private sector adopting this state-of-the-art technology. The United States military sectors are also using digital twins and other features of the Industrial Metaverse to assist in the repair, manufacture, and maintenance of large machinery like [helicopters](#). The work involved in creating digital twins within the Industrial Metaverse is painstaking and tedious, requiring thousands of digital photographs to be taken, ensuring exact simulations of the subject physical object or factory.

The possibilities within the Industrial Metaverse are endless: collaboration across computer screens means everyone can participate from anywhere; but furthermore, new concepts may be intricately designed and tested in a virtual environment before building begins, meaning problems may be solved before money, time, and resources are wasted on physical materials. In fact, a recent study found that the use of digital twins may improve operational and maintenance efficiency [by 35%](#). However, attention must be paid to the risks involved as well, especially cyberespionage and cyberattacks within this environment.

As companies move their “secret sauce” recipes and building plans into the Metaverse, creating detailed copies

of their factory floors and testing new concepts in virtual reality, hackers will eagerly attempt entry. Balancing this new technology with new security responsibilities is a significant task, with limitations on access (and the principle of least privilege) taking priority, strict use of non-disclosure agreements, and the implementation of cybersecurity best practices and consistent vulnerability audits and penetration testing plans.

2. Law in the Metaverse

2.1 Self-Regulating within the Metaverse

In the United States, social media platforms have long been accustomed to a lack of heavy regulation. Instead, these powerful forces self-regulate, with the Federal Trade Commission (FTC) stepping in to investigate privacy and data collection practices and penalize as necessary. Thus far, Metaverse platforms are similarly situated, as no concrete, Metaverse-specific laws have yet been adopted. Every Metaverse platform, however, posts its own Terms of Use, Terms of Service, and Privacy Policy that users must adhere to, and that the platforms themselves must abide by.

These verbose documents change regularly, updated based on how the platforms are evolving and how users are interacting with and using the technology. Just as social media platforms are continually threatened with a potentially heavy hand of federal law drawing up new rules, however, Metaverse platforms should expect serious scrutiny related to how they handle issues including, but not limited to, moderation, cyberbullying, hate speech, misinformation, threats, and assault. These issues have plagued social media for decades, and have already sprung up in this newest version of the Internet.

Metaverse platforms have had to adapt quickly to changing concerns. For example, [a Metaverse researcher recently experienced an attack](#) on her avatar within the Horizon Worlds platform: she was verbally and sexually harassed by a group of male avatars that also took screenshots of the incident. As more Metaverse users began to report abuse, the platforms had to respond. Meta began offering a feature called [Personal Boundary](#), which allows users to enclose themselves in a protective bubble

that blocks other avatars from coming within a few feet of them.

While Metaverse platforms move quickly to respond to problems like harassment, it may not be enough – especially in an environment that is built on the concept of being completely immersive (hence, users that are virtually assaulted may feel the impact even more so than they would on the Internet). When other immersive technologies become more widely available, especially haptic vests and bodysuits, the impact of actions within the Metaverse will evolve accordingly.

2.2 Old Laws, New Applications

The laws relevant to the Metaverse must evolve as well, and stretch to fit new, confusing, and complex scenarios. Lawyers will need to guide their clients as to best practices, and how to handle potential legal pitfalls. Every distinct use of the Metaverse has its own legal dilemmas, and just as law school students become trained in issue spotting, so too will seasoned attorneys need to engage in this practice to attempt to predict where new and unconventional problems may arise.

The Metaverse as storefront requires legal analysis related to a variety of concepts, including privacy (notice of consumer data collection, review of data flow and security practices, and the increasing collection of biometric data from Metaverse access devices); intellectual property (copyright and trademark of both physical and virtual goods and services); and children's use of the space, if applicable. It is important to note that many of the Metaverse platforms available today cater to large numbers of minors, especially Roblox, which has no minimum age requirement to sign up and already has [a large number of users under 13](#). The Internet is already plagued with concerns of children accessing content that should be better blocked if there is no parental or guardian consent, and the Metaverse is facing similar problems. For example, in *Doe v. Roblox*, 3:21-cv-03943 (N.D. Cal. May 25, 2021), one of the issues was how a ten-year-old Roblox user could consent to be bound by the platform's Terms of Use.

Many large corporations are setting up shop across a variety of Metaverse platforms to reach more consumers,

and offer a wider range of goods and experiences. While the high profile nature of such a venture can be part of an exciting PR and brand development strategy, it must be balanced with the legal risks.

Creating Metaverse workplace environments is an entirely different type of minefield for attorneys to traverse. Typical employment laws will need to be evaluated for new context, and employee handbooks will need to be thoroughly updated to account for additional concerns. For example, accessibility and discrimination may be problems in mandating Metaverse use, as research has shown that [women experience more motion sickness](#) when using virtual reality. Furthermore, even the [design of employees' avatars may lead to problems](#), for example: avatars that do not accurately depict the subject user, oversexualized avatars, or avatars created to mock someone else in the workplace. Because of the perceived disconnect between our avatar and our physical self, employers (and their counsel) will need to decipher how to address these concerns in advance of setting up conference tables in the Metaverse.

Employees should also be made aware of how to draw boundaries for work time versus private time within the Metaverse, especially if the employer is providing the necessary Metaverse tech and platform access. Case law abounds related to employer access to private employee social media accounts, but the Metaverse could blur lines even further as employees may “take breaks” from the workday within the same Metaverse platform they use for meetings, and should thus be made aware of what their employers may see and/or record. Also, depending on how employers choose to access and record employee activity within the Metaverse, it will become important to create policies for digitized evidence and litigation holds.

The Metaverse as social space – for gaming, concerts, small get-togethers, or other collaborative events – faces the same legal hurdles as virtual storefronts, plus a host of other concerns. When guiding the creation of social environments in the Metaverse, attorneys should consider how avatars may interact, and how those interactions could go wrong (hate speech, harassment, and cyberbullying).

In 2022, dozens of organizations spanning consulting to retail, technology to finance, joined together to create the Metaverse Standards Forum. This group’s mission is to “. . . encourage and enable the timely development of open interoperability standards essential to an open and inclusive Metaverse.”¹ While the Forum will not be creating its own standards, the collaboration of such powerful companies should help coordinate better understanding of best practices and shared operability goals. While such standards are not legal regulations, they could be guideposts for entities pondering Metaverse entry.

2.3 Metaverse Precedent

While there are no Metaverse-specific laws yet, lawsuits are already testing the water in the Metaverse. Some of the legal theories at issue are centered on basic concepts that have quickly become complex when layered over the cutting-edge landscape of the Metaverse. In *Hermes International et al. v. Rothschild*, No. 22-cv-384 (JSR), Dkt. 24 (S.D.N.Y. Jan 14, 2022), an artist’s creation of digital “MetaBirkins,” in the form of non-fungible tokens (NFTs) led to a dynamic lawsuit based on alleged trademark infringement of the French luxury fashion house’s storied Birkin handbag.

Many other brands will face similar legal conflicts in the sale of virtual goods, including NFTs and other digitized items like in-game purchases and avatar clothing, and pending cases will help shed light on what to expect moving forward (including *Nike Inc. v. Stockx LLC*, 1:22-cv-00983 (S.D.N.Y. Feb. 3, 2022), which centers on Stockx’s use of the Nike brand name in association with its NFTs). With concerns including trademark infringement and dilution and counterfeiting, it is obvious why major brands have been participating in a rush to file applications with the U.S. Patent and Trademark Office to protect their brand assets within the Metaverse.

Beyond intellectual property concerns, advertising within the Metaverse is also fraught with fuzzy boundaries. Advergaming (games developed with a specific brand for marketing purposes) and avatar influencers (socially

¹ The Metaverse Standards Forum, <https://metaverse-standards.org/>, accessed 26th September, 2022

impactful individuals endorsing brands and products via their avatars in the Metaverse) should be on every brand's legal radar. Just as in social media, explicit disclosures may need to be made regarding these types of advertising partnerships. The Truth in Advertising Organization has already filed a formal complaint with the FTC, pointing to concerns with the exploitation of “. . . children's inability to distinguish organic content from marketing.”²

3. New Metaverse Roles

3.1 The Chief Metaverse Officer

As the significance of the Metaverse evolves, so too will corporate roles and responsibilities. Thus far, a variety of companies have begun hiring for “Chief Metaverse Officers,” or similarly contemplated functions. The Walt Disney Company was one of the first major corporations to publicize the creation of a Metaverse-strategy-specific role: [“Senior Vice President of Next Generation Storytelling and Consumer Experiences.”](#) This leader will strategize Disney's entry into the Metaverse, and, importantly, is tasked with creating a cross-disciplinary team to assist in such efforts. While Metaverse strategy may also be [outsourced](#), it should encompass more than just the creative and marketing aspects of navigating this new opportunity. A true Chief Metaverse Officer, one who considers Metaverse strategy comprehensively, must contemplate not only the rewards – reaching more consumers, creating new experiences, connecting employees across the world, revolutionizing business practices in an efficient manner – but also the risk. And the risk comes in all forms: legal, privacy, cybersecurity, and the general navigation of a new frontier. Chief Metaverse Officers will need to collaborate across every department to understand how to evaluate both risk and reward. Entering the Metaverse impacts every aspect of a business and should be responsibly approached.

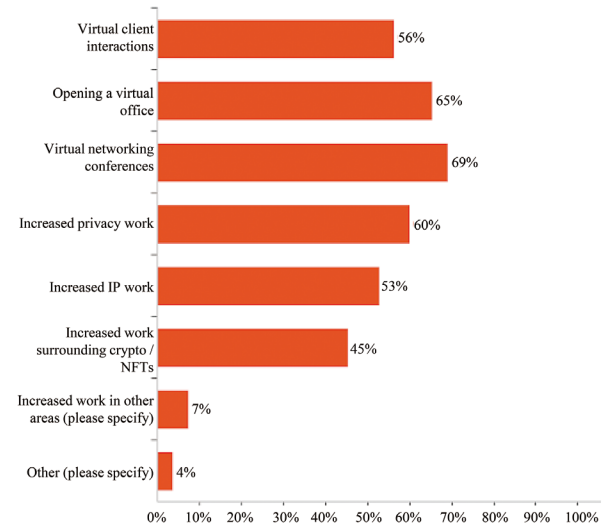
3.2 Metaverse Legal Counsel

Lawyers must consistently attempt to stay ahead of technological advances (and potential curveballs), especially as the legal field has become digitized itself.

² Truth in Advertising (2022), Roblox Complaint, https://truthinadvertising.org/wp-content/uploads/2022/04/4_19_22-Complaint-to-FTC-re-Roblox.pdf, accessed 26th September, 2022

Law firms have already begun putting up shingles in the Metaverse, and the question has been posed: How could the Metaverse change the practice of law?

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Source: Above the Law

Figure4: April 2022 Attorney Survey

Lawyers with Metaverse offices must navigate issues like confidentiality and cybersecurity to keep their clients safe. Metaverse legal counsel must appreciate how this new version of the Internet complicates existing laws and precedent, and requires proactive and creative issue spotting to establish foundational, and thoughtful, best practices.

Author Introduction



*Leeza Garber, Esq.
Leeza Garber, Esq. Consulting LLC
Lecturer, The Wharton School
Author, Can. Trust. Will.: Hiring for the Human Element in the New Age of Cybersecurity (Business Expert Press, January 2022)*

Leeza Garber is an attorney, expert, and keynote speaker specializing in cybersecurity and privacy law. She offers executive education to companies around the world. She is an adjunct law professor at Drexel University's Kline School of Law with a focus on privacy, and teaches Internet Law, Privacy and Cybersecurity at The Wharton School where she was honored with the Wharton Teaching Excellence award. Leeza is an expert on televised media outlets including Fox News Channel, Fox Business Network and The National Desk to analyze issues relating to law, technology, and privacy.