THE METAVERSE: WHAT ARE THE LEGAL IMPLICATIONS?

As a growing number of tech companies invest heavily in the metaverse – which allows users to live, work and play in alternative virtual worlds – we explore the legal issues that it may give rise to, including data security and privacy, IP, copyright, and antitrust.

What is the metaverse?

From Facebook’s recent decision to rename itself “Meta” through to Epic Games’ billion-dollar investment in metaverse technologies to Snap’s continued development of a prototype for augmented-reality glasses, the metaverse has dominated the news and will likely continue to do so this year. But what is it? There is no universally accepted definition for the term “metaverse,” and, for many, it is simply an amorphous term used to refer to an as-yet-undeveloped future of the internet. Almost all conceptualizations of the metaverse include the use of virtual reality (VR), augmented reality (AR), and avatars, connected by a massive network. Nonetheless, there are competing visions of the metaverse. Some of its proposed architects are leaning towards an immersive VR environment, while others reject the idea of a totally virtual world and push instead for an AR-based one; for example, John Hanke, CEO of Pokémon Go developer Niantic has expressed enthusiasm about a metaverse based entirely in augmented, not virtual, reality. In addition, although “the metaverse” is often described as a singular, unitary entity, others refer to “metaverses,” presumably envisioning several sets of virtual spaces that are owned by distinct proprietors and which are not necessarily interconnected.

Disney CEO Bob Chapek suggested to investors in November 2021 that Disney plans to develop its “own Disney metaverse.”

What is certain is that, as these technologies continue to develop, novel and complex legal issues involving the fields of antitrust, data and consumer privacy, intellectual property, real estate, and financial regulatory compliance will become increasingly commonplace.

Many proponents of the metaverse agree that one key feature of the metaverse is interoperability, or the ability for users to move their avatars and items of value such as digital assets from one “corner” of the metaverse, such as a program, site, or platform, to another without a loss in functionality or identity. Put another way, an interoperable metaverse would allow users to transport their avatars and other data, including digital assets, between applications, regardless of whether those applications are under common ownership or operation. Retention of a user’s identity and ownership over their digital assets could be accomplished, among other ways, through blockchain technologies, creating a sort of metaverse-specific property interest.

Yet some would-be architects of the metaverse do not even agree on the use of these core digital technologies. This lack of a clear definition is understandable given that many of the technologies predicted to be essential to the metaverse have yet to reach sufficient scale, capacity, or adoption.

What practical applications will the metaverse likely have?

Those who predict the biggest technological advancements also envision a metaverse that is utterly transformative, one that utilizes building blocks such as Web 3.0, and one that will revolutionize the way that people work, learn, and play in much the same way that the embrace of the internet changed society in the early to mid-2000s.
Video games
Perhaps the most obvious application of the metaverse is in video games. Games including Epic Games’ Fortnite, Microsoft’s Minecraft, and Roblox already offer the ability to interact with other users online in a virtual world, and all three are available in VR. Other games use AR to digitally enhance reality. For example, Niantic’s Pokémon Go geocaches fictional creatures all around the world and allows users to detect and “catch” them on their mobile devices. In-app payments are already the dominant monetization model for applications on mobile devices, and the metaverse could offer even more opportunities for companies to offer virtual goods and services through this model.

The workplace
The workplace will almost certainly not escape a transformation brought about by improved communication technologies mediated through the metaverse. Meta is developing a product called Horizon Workrooms, while Microsoft is developing a product called Mesh. Both products envision users meeting as avatars in a three-dimensional virtual space, thereby offering a greater degree of immersion than can be achieved by two-dimensional video calls.

Events
Various types of events have already occurred in the metaverse. Epic Games’ Fortnite has hosted musical performances and concerts by world-famous artists, and Epic’s purchase of the studio that developed Guitar Hero and Rock Band (games in which users generate music virtually by “playing” plastic instruments) suggests that users may soon be able to play their own “instruments” in the metaverse as well. Other companies are investing in creating virtual private events, such as graduations, weddings, and other celebrations. Some platforms, such as Meta’s Horizon Worlds and Linden Labs’ Second Life, allow social interaction in a spontaneous, non-competitive capacity, where users interact with one other through avatars, navigating a three-dimensional animated world resembling our own. "Decentraland," a metaverse platform, is hosting a "Metaverse Fashion Week" in March 2022, with several brands and thousands of visitors able to attend fashion shows and purchase and wear digital clothing from model avatars.

Healthcare and medicine
AR and VR are also being used in health care and medicine. AR has been used for physical care: doctors have used it to operate on real-life patients, architects have used it to design operating rooms (using holograms to visualize people and equipment), and trainees have used it to watch simulations of medical procedures. VR has served as a mental health tool as well. One VR application offers an alternative to traditional talking therapies by allowing therapists to guide patients experiencing post-traumatic stress through a virtual world that simulates their past experiences.

Virtual real estate and digital assets
These examples illustrate that the architects of the metaverse envision the creation of something that will radically transform every aspect of life, much like the internet did. One of the more intriguing (and disruptive) uses of the metaverse, however, does not relate to the "real world" at all. Companies have begun to spend and earn millions of dollars on "virtual real estate," or specific plots of virtual land in virtual spaces. Consumer brands have also partnered with digital platforms to sell digital assets – for example, Nike has partnered with Epic Games to create a digital collection of Michael Jordan-branded digital "wearables" meant to be worn by consumers’ avatars in the Fortnite game.

What legal issues will the metaverse raise?
As with any groundbreaking technological development, the metaverse will raise novel and complex legal issues. As the practical applications of the metaverse continue to broaden and evolve with improvements in technology, so too will the legal and regulatory challenges. Adding to an already complex field of
play, the metaverse is designed to be deeply interconnected, seamless, and ungrounded in physical space. Each of the legal issues discussed below will require practitioners to navigate questions of jurisdiction, territoriality, and conflicts of laws, none of which have been neatly resolved for even the current iteration of the internet, let alone fully realized virtual worlds with an even greater degree of interaction and user immersion.

**Data security and privacy**

Digital security and privacy will be among the most significant legal issues facing platform owners. These concerns are not news to tech companies, which face increasing scrutiny from regulators and users alike. But data in the metaverse will become exponentially more valuable than it already is, and technologies will become increasingly integrated into multiple aspect of users’ lives. This developing technology will stress-test existing laws and put even greater pressure on regulators to match the sophistication of the technology. Further, a singular metaverse, if operated by multiple entities, will require interoperability standards that siloed, disparate metaverses will not. User information will be at particular risk of exploitation given the vulnerabilities involved when data is ported from one application to another, and platform operators will need extensive agreements to govern data transfers, information security standards, and responsibility for compliance (as well as data breaches, which could cause even more chaos than they do today).

Major technology companies are already facing significant antitrust scrutiny and increasing regulation around the world, and the development of the metaverse may spur additional scrutiny and action from antitrust enforcers. Interoperability between platforms, which is widely believed to be an essential component of the metaverse, requires industry standards in order to be effective. While antitrust law generally permits businesses to jointly create pro-competitive technical certifications, including standards that improve interoperability, the standard-setting process can nonetheless give rise to antitrust concerns. In addition to concerns around a fair standard-setting process, cooperation agreements and industry standards risk restricting output and can violate the antitrust laws if not sufficiently tailored to their pro-competitive purpose. As major technology companies seek to build the infrastructure for the metaverse, they may encounter claims of antitrust violations and additional scrutiny from antitrust enforcers and legislators.

**Intellectual property**

Questions of intellectual property are also highly relevant. For example, determining the identity of the creators of a given work in the metaverse may be more difficult when the work results from a decentralized collaborative process performed by users anonymized behind avatars. Such uncertainty could also change courts’ understanding of fair use. Meanwhile, trademark lawyers are focusing on questions such as how trademark dilution might occur in the metaverse, whether digital assets should qualify as “goods” for purposes of the trademark laws, and who should be held liable when the identity of the infringer is unclear. Intellectual property issues relating to the fashion and luxury goods sector have already begun to arise. In January 2022, French luxury fashion house Hermès sued a Non-Fungible Token (NFT) creator Mason Rothschild, who marketed a line of digital assets called “Metabirkins,” digital duplications of the Birkin bag created by Hermès that sell for tens of thousands of dollars or more, with prices even higher in the resale market. Hermès alleged trademark infringement and dilutive use of the Birkin name.

**Fintech**

Legal issues related to fintech will arise increasingly in the metaverse, especially as more companies offer digital assets and services for sale. Sales of virtual goods are already being made using cryptocurrencies and other digital assets,
and they may ultimately be supported by the same blockchain technologies that allow for the metaverse's essential interoperability functions. Brands can distribute digital "goods" in the metaverse, either by selling identical goods to many users (like branded pairs of sneakers) or by selling rights or indicia of ownership to individual goods, such as a unique piece of art. Purchasers of the latter can acquire such goods as an investment or keep them for their own collection, even displaying them in a virtual environment (e.g., by "hanging" them in the living room of their virtual "summer home"). The art’s authenticity may be verified on the blockchain through NFTs using a process similar to the verification of the value of the cryptocurrency itself. Legal questions will surely arise regarding the proper verification of ownership and potential infringement or conversion of authentic and verified purchases. If cryptocurrency is treated like a financial instrument or security, which seems increasingly likely in certain jurisdictions, then consumers will experience hurdles using cryptocurrency as a currency for the purchase of digital goods. As more individuals acquire digital assets, operators of platforms where the digital assets exist will likely face a duty of care to ensure the safety of the digital assets.

Major tech companies are rapidly scaling up their metaverse activities and will continue to do so through M&A. This is a global trend, with a spike in metaverse deals across markets in the US, UK, Europe, and Asia-Pacific. An increase in cross-border deal-making means navigating the legal complexities highlighted above, while also facing increased scrutiny given the central role of tech companies in the digital economy and regulatory policies trending towards data controls and technological sovereignty.

Much of this M&A activity will be concentrated in the gaming sector due to the cross-over potential between the technologies and markets. In January 2022, Microsoft announced a $75 billion deal for the gaming company Activision Blizzard, followed a week later by Sony's $3.2 billion acquisition of Bungie. Other deals will be pure metaverse plays. Since acquiring Oculus in 2014, Meta has steadily been acquiring VR companies (Within in October 2021, Unit 2 Games and Bigbox VR in June 2021, Downpour Interactive in April 2021, and Beat Games in 2019), and we can expect more metaverse-relevant acquisitions in the future as part of Meta's announced $10-billion-per-year investment in the metaverse.

We also expect to see further metaverse-related IPOs and SPACs, such as the recent IPO of Hiro Metaverse on the London Stock Exchange, a SPAC dedicated to metaverse technologies in Europe and Israel.

What's next?
Currently, it is difficult to predict the extent to which the most far-reaching visions of a metaverse – a three-dimensional virtual world where millions or even billions of people shop, work, and interact – will materialize. Despite numerous advances, technological barriers still exist: supporting a virtual reality environment requires enormous amounts of energy and bandwidth, and VR hardware developers are still trying to improve their products' battery life.
weight, and mobility. Even if the technological prerequisites for a metaverse were readily available, users might be wary of the harms that could come from immersing themselves further in a virtual world, which could hamper adoption. Finally, interconnected spaces have drawbacks along with benefits. With connectedness comes some degree of homogenization, and some users may not want to relinquish the ability to customize their own online environments in ways that are possible in contained and fragmented spaces but not in an open and universal metaverse. Competing visions for the metaverse could give rise to competing metaverses that are never fully interoperable.

Despite these barriers, the market for metaverse investment has never been stronger. Companies from tech giants to clothing brands have realized the potential of these technologies and have begun to court new types of interactions with their customers.

As Mark Zuckerberg said in announcing his company’s rebrand and metaverse initiative, “The best way to understand the metaverse is to experience it yourself, but it’s a little tough because it doesn’t fully exist yet.” Certainly, it would be a difficult task to predict which of the many metaverse projects being developed by tech firms and non-tech firms alike will succeed, in terms of both technical outcomes and mass adoption. As companies innovate, these developments will foster disputes among businesses, governments, and consumers and give rise to novel legal questions for years to come.
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