Intellectual property

We already understand that the known universe of the Internet has fractured existing models of exploiting intellectual property rights, challenging owners and users of protected content in the areas of authorization, monetization, and enforcement – notably where user-generated content is concerned. At least, however, those debates have as their starting point relatively solid concepts of, for example, copyright works and rights ownership conferring economic and moral rights (even if copyright law continues to struggle with the application of restricted copyright acts to the Internet world – viz the travails of the European courts on the subject of communication to the public).

The metaverse, conversely, will challenge these principles and ask questions such as whether its information landscape and virtual creations qualify for legal protection and ownership at all; where content built on underlying layers of third-party information falls within existing notions of modified or derivative works; and how exceptions to copyright protection such as quotation or private copying may be applied. Just as Philip K. Dick asked us whether androids dream of electric sheep, in the metaverse, we may be asked to consider whether the machine that asks us whether electric sheep dream of androids is an entity capable of parody.

"The metaverse – advertising's next frontier"

Interoperability. Interoperability is defined as the ability for computer software to communicate with one another for the effective exchange and process of information. The purpose of interoperability is to make it so that different systems are able to "talk" and "understand" the information they pass to one another. Although valuable in any field, interoperability is especially relevant for the metaverse, where no single software will be used to build it.

Today, interoperability is a concept that is limiting the rights of computer program rights holders, which are protected by copyright. In effect, their authorization is not required where copyright-relevant acts pertaining to the code are indispensable to obtain the information necessary to achieve the interoperability of an independently created computer program with other programs, provided that certain conditions are met (legitimate access to the software, necessary acts only, etc.).

In the metaverse, this concept is likely to come increasingly to the fore, and it will be interesting to see how developers adapt to the new demands of making systems interoperable.

Copyrights

Copyrights and their use in the metaverse

Copyright protection in the United States extends to "original works of authorship fixed in any tangible medium of expression." Many works used in the metaverse are copyrightable, including software, pictorial and graphical works, and sound recordings used within metaverse.

Issues for owners and users of copyrighted works in the metaverse

For copyright owners, the metaverse presents several potential benefits. For example, developers can leverage first-mover presence in a particular aspect of the metaverse to obtain royalties for the use of copyrighted software from late adaptors who are playing catch-up within a particular space.

The Digital Millennium Copyright Act (DMCA) provides an additional layer of protection for copyright owners. The DMCA prohibits the circumvention of measures controlling access to copyrighted works and prohibits the removal and alteration of copyright management information. The DMCA's remedies for such violations serve as additional protection for metaverse content that is encrypted or otherwise protected against access by potential infringers.

The metaverse also creates risks for copyright owners. For example, policing the metaverse for piracy of copyrighted works can be challenging. Additionally, if the use of the copyrighted work is de minimis, the copyright owner may have difficulty proving infringement. Also, content creators face unique risks. For example, if they are relying on existing licenses in underlying works to create digital content for the metaverse, they must ensure that those existing licenses cover the use of the copyrighted work within the metaverse.

Best practices for owners and users of copyrighted works

Suggested best practices for use of copyrighted works in the metaverse include:

- Reviewing agreements for distribution of third-party content for proper licenses to copyrighted works
- Ensuring that agreements with customers protect against unintended distribution of copyrighted works
- Promptly registering copyrights in metaverse assets and software
- Properly marking copyrighted works
- Implementing technological measures to protect against unauthorized distribution of the works

Trademarks

Trademarks and their use in the metaverse

A trademark is a word, phrase, slogan, design, or logo that operates as an indicator of source for goods or services. Trademark law protects against the unauthorized third-party use of a trademark in a manner that would cause a reasonable consumer to believe that the trademark owner either was the source of the goods/services or endorsed or sponsored such goods/services, or in a manner that may dilute the trademark.

Trademarks are important features in the virtual landscape, and their use is prevalent in the metaverse. As people and companies continue to create and establish their presence online and in the world of virtual and augmented reality, this presents both opportunities and risks. Trademark owners who successfully leverage the metaverse to engage in cross-promotional branding can reach a wider audience, but they must be aware of potential liability associated with that expanded reach.

Issues for owners and users of trademarks in the metaverse

While mixed and augmented reality have allowed brand owners to extend their reach to a growing new industry and consumer base, it has also created issues for both owners and users of trademarks, particularly in the gaming space. For example, a common issue with the intersection of the virtual and real worlds has been the use of real-world, third-party trademarks in video games that simulate the real world.

In the United States at least, trademark owners have not always fared well in their efforts to enforce trademarks used in virtual worlds. An early example of the potential pitfalls of using real-world trademarks in the virtual world played out in *E.S.S. Entertainment 2000, Inc. v. Rock Star Videos, Inc., 547 F.3d 1095* (9th Cir. 2008). In E.S.S., the issue was whether a virtual depiction of a real-world strip club in the popular game Grand Theft Auto: San Andreas infringed the real strip club's logo and exterior design trademark rights. The court ultimately held that the depiction of the strip club in the video game did not infringe the strip club owner's trademark and trade dress rights as the video game was an artistic expression protected by the First Amendment, and it was unlikely that consumers would be confused into believing that the strip club produced the sophisticated video game.

With the proliferation of user-generated content in the last few decades, as well as online "virtual world" games such as Pokémon Go, The SIMS, and Second Life, a new set of issues have arisen involving the use of third-party trademarks in virtual worlds. For example, Second Life, a large multiplayer role-playing game that also operates as an online economy, allows users to create their own virtual worlds, develop and promote intellectual property, and even sell their own branded creations (or those of others – more on that below) for a profit. Users can even build an online business presence in Second Life to sell their products in the real world. However, with these opportunities also come the risks of unauthorized use of third-party trademarks and possible brand dilution. For example, avatars (virtual characters created by real users/players) can sell and purchase virtual goods bearing the trademarks of third parties. Thus, trademark owners should also be aware of the risks presented with the use of brands in these "virtual worlds." While case law surrounding the use of trademarks in the virtual space is unsettled and still developing, some issues that have arisen include the following cases:

- *Minsky v. Linden Research, Inc.*, No. 1:08 cv 819 (N.D.N.Y. 2009): In *Minsky*, the plaintiff opened an art gallery in the virtual world game Second Life and named it "SLART." The plaintiff obtained a U.S. Patent and Trademark Office (USPTO) registration for the mark SLART and subsequently learned that a user-created avatar in Second Life was using SLART GARDEN for its own virtual art gallery. The court never decided the merits of the case, as the case ultimately settled.

- *Leo Pellegrino v. Epic Games, Inc.,* No. 19-1806 (E.D. Pa. 2020): In this case, the plaintiff – a saxophonist who went viral on the Internet for his dance moves – sued the developer of the popular video game Fortnite, alleging that the game featured a virtual saxophone-playing avatar that copied his dance moves. The court dismissed Pellegrino's claim for violation of his right of publicity, based on the First Amendment. The court also dismissed Pellegrino's trademark claim, finding the allegations were better suited for copyright law. The court allowed Pellegrino's claim for false endorsement to proceed, but after the court issued its order, Pellegrino withdrew his case.

- *AM General v. Activision Blizzard,* No. 17-cv-8644 (S.D.N.Y. 2020): In this case, AM General, the company behind the Humvee truck, sued Activision Blizzard, alleging trademark infringement for including the truck in Activision's Call of Duty video game. The court found for Activision Blizzard on summary judgment under the First Amendment, explaining that (1) "Defendants' uses of Humvees in 'Call of Duty' games have artistic relevance," and that (2) "[f] eaturing actual vehicles used by military operations around the world in video games about simulated modern warfare surely evokes a sense of realism and lifelikeness."

If there is a common theme in this area of the law, it is that the risks of liability for a user of a third-party trademark are greater when the unauthorized user is engaging in commercial activity using the trademark.

Best practices for trademark owners

As the metaverse continues to grow and evolve, with the lines between the "real world" and the "virtual world" continuing to blur, brand owners may need to enforce their trademarks in the virtual world. Below are steps that brand owners should consider to protect their valuable trademarks:

- Register the trademark: Brand owners are strongly encouraged to register their trademark with the USPTO and foreign equivalents. In the United States, doing so creates a rebuttable presumption that the owner owns the exclusive right to use its trademark in connection with its goods or services, and puts the owner in a much better position to enforce against any unauthorized use of its mark in either the virtual world or the real world.
- Consider subscribing to a trademark watch service: It is impossible for a trademark owner to monitor and track every infringing use in the market, especially when the owner has a large trademark portfolio. As such, trademark watch services allow the trademark owner to monitor relevant markets and Internet content for possible infringing activity. Consider designating outside counsel to review these reports as they come in. By working with a watch service, owners can be notified of infringing activity sooner rather than later, and can take swift action as these issues arise.
- Immediately notify the platform of infringing activity: Assuming the infringing activity is being conducted by a third-party platform user, brand owners should report this infringement to the platform. Many of these entities do not want to be liable for any contributory infringement, and they will have mechanisms in place to remove the infringing content once they become aware of it.
- Evaluate the nature of use and possible claims: Once aware of possible infringing activity, consider the nature of the infringing use and how the use affects the overall brand and the market for the goods/services associated with the brand. As illustrated in the above case examples, not all trademark use in the metaverse is actionable. Outside counsel can assist with this analysis and can help to determine what obstacles, if any, may exist to the enforcement of the trademark. It is also important to note that nationally known brands in the United States are in a better position to enforce against unauthorized use since under the Federal Trademark Anti-Dilution Act, nationally recognized or "famous" brands can sue if the unauthorized use of their trademark by others "tarnishes" or "blurs" the trademark. The Act applies regardless of whether or not consumers are confused as to the source of the goods.

"It is impossible for a trademark owner to monitor and track every infringing use in the market, especially when the owner has a large trademark portfolio."

- Establish a metaverse presence: Finally, brand owners should consider establishing a metaverse presence of their own. Aside from the benefits that come with leveraging the metaverse as an alternate means of reaching consumers and building brand awareness via a thriving and growing market, it also provides an opportunity to monitor activity, and it may even help thwart trademark infringement by bad-faith actors.

Patents

Patents and their expanding use in the metaverse

A patent for an invention is the grant of a property right to the inventor, issued by the U.S. Patent and Trademark Office. Generally, the term of a new patent is 20 years from the date on which the application for the patent is filed in the United States or, in special cases, from the date an earlier related application was filed, subject to the payment of maintenance fees. U.S. patent grants are effective only within the United States, U.S. territories, and U.S. possessions. Under certain circumstances, patent term extensions or adjustments may be available.

Companies developing metaverse-related technologies often use patents to protect their inventions. Most metaverse-related patents are in either the VR or AR space. The number of new patents filed related to AR/VR has increased globally at an annual rate of 33 percent since 2010. This exponential rise in the number of filings indicates the increased research and development spending on metaverse-related inventions.

Additionally, research on and development of metaverse-related inventions are no longer restricted to entertainment and science fiction. AR/VR-related patents are now being used in a wide variety of industries, such as online shopping, workplace training, health care delivery, and real estate.

Issues for owners and users of patented inventions in the metaverse

As with other intellectual property, patent use in the metaverse presents opportunities and risks. A particularly lucrative benefit of owning a patent focused on AR/VR technology is potential licensing revenue. However, identifying potential licensees may present a challenge. In fact, owners of patented inventions used in the metaverse face even greater challenges in policing infringement than do owners of copyrights and trademarks. That is because the use of a software patent is not always visible in the metaverse. Indeed, proof of infringement of a software patent such as an AR/VR patent often turns on the analysis of source code, which is not available until the patent owner has filed a lawsuit and obtained the source code during discovery.

The risks to owners of metaverse-focused patents include potential invalidation of the patents during litigation to enforce the patent. U.S. courts increasingly have been invalidating software-focused patents as "abstract" and ineligible for patenting under section 101 of the U.S. Patent Code and a landmark U.S. Supreme Court decision in *Alice Corp. v. CLS Bank International*, 573 U.S. 208 (2014). In 2020, the patent eligibility of 27 software patents was at issue in appeals before the U.S. Court of Appeals for the Federal Circuit (CAFC), which is the U.S. appellate court dedicated to deciding patent law issues. Out of the 27 patents, the CAFC found only four to be partially or fully eligible under section 101. The law in this area is still developing and is murky at best. This creates uncertainty in the value of patented AR/VR inventions.

Best practices for owners of metaverse-related inventions

Because of the uncertainty surrounding patent eligibility for software inventions in the United States, owners of such inventions might consider not filing a patent at all, and instead protecting the invention as a trade secret. Every invention starts as a secret. At some point, the inventors (or the owners of the invention) have to choose whether to keep their invention as a secret or file for patent protection. Keeping a software invention as a trade secret avoids having to prove that the invention is not merely an "abstract idea" and that it is therefore eligible for patenting. In determining whether to patent a software invention or instead treat it as a trade secret, the owner of the invention should consider:

- Whether the invention will be useful in more than 20 years. If so, it is worth exploring trade secret protection because trade secrets can last longer than the 20-year life of a patent, assuming the trade secret does not become stale due to advances in technology.
- How difficult it is for other companies to reverse engineer the invention. The easier it is to reverse engineer an invention, the less likely it will be considered to be a trade secret.
- How often their employees who have access to the invention change jobs. It becomes more difficult to protect trade secrets in industries with high attrition rates and in jurisdictions that do not view non-compete restrictions favorably.

These choices are strategic and require owners of AR/VR and other metaverse-related inventions to think about the broader picture of intellectual property ownership and its associated benefits and risks.

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“This explosion of new rights will present legal problems for the citizens of the metaverse.”