The Metaverse Can Sustain Legal States



The Metaverse as an idea was first coined by Neal Stephenson in his 1992 novel *Snow Crash* as a space on the internet that users could inhabit like the real world.[[1]](#endnote-1) There is real estate that is bought and sold, users can work jobs to earn cash, and the territory is governed by laws and social classes.[[2]](#endnote-2) In fact, in this work of fiction, some people spend their entire lives continuously connected to the metaverse.[[3]](#endnote-3) While *Snow Crash*’s fiction is very dystopian, it has been credited with creating the idea that someone could live significant portions of their life in a virtual space on the internet.[[4]](#endnote-4)

Today, there are several functional metaverses where individuals can occupy virtual space in an extended reality using virtual reality headsets.[[5]](#endnote-5) Future iterations may involve a Brain-Computer Interface for complete integration into the metaverse.[[6]](#endnote-6) The metaverse is distinguishable from traditional two-dimensional (2D) online applications because it possesses: “(1) an immersive, three dimensional (3D) user experience; (2) real-time, persistent network access; and (3) interoperability across networked platforms.”[[7]](#endnote-7) The three-dimensional environment allows for the users to be “within the internet, not just looking at it.”[[8]](#endnote-8) The persistent network access allows the virtual cyberspaces to “continue to exist and evolve even when no users interact with it,” just like the physical world.[[9]](#endnote-9) Finally, interoperability allows for “a unified user experience in an interconnected metaverse system” where users do not need to leave the metaverse to meet virtually all of their needs.[[10]](#endnote-10) Together, these allow for the metaverse to “replace[] the user’s physical reality with a simulated one.”[[11]](#endnote-11)

The metaverse is already immersive enough to conduct commerce within, and the market is measured in the hundreds of billions of dollars.[[12]](#endnote-12) Virtual real estate is bought and sold.[[13]](#endnote-13) Counties threatened with climate change induced extinction are uploading their existence into the metaverse.[[14]](#endnote-14) Law firms have even opened virtual locations that serve metaverse community members with their metaverse-related legal concerns.[[15]](#endnote-15) According to Pew Research Center, over half of industry experts “expect by 2040 the metaverse WILL be a much-more-refined and truly fully-immersive, well-functioning aspect of daily life for a half billion or more people globally.”[[16]](#endnote-16) A truly fully immersive metaverse will support even more independent commerce and industry.[[17]](#endnote-17)

The metaverse is distinct from physical territories in that it has no physical location, and users cannot physically enter it. The inhabitants of the metaverse are physically located in their respective localities and can only interact in the space through the use of an avatar.[[18]](#endnote-18) The virtual space they occupy within the metaverse, however, is not located in any locality. With traditional websites on the World Wide Web, the server is located in one location and the user in another.[[19]](#endnote-19) Legally, the transaction occurs at both the location of the server and the location of the user in the traditional World Wide Web[[20]](#endnote-20) Thus, there is no transaction actually occurring in the nebulous of the World Wide Web but rather on two distinct locations on our globe. [[21]](#endnote-21)

The Metaverse, however, is not located anywhere and, therefore, must be its own location. The metaverse takes place on a special decentralized blockchain known as Web3.[[22]](#endnote-22) “[W]eb3 is the internet owned by the builders and users, orchestrated with tokens” and not tied to any location because there is no centralized server.[[23]](#endnote-23) While the users, one-half of the transaction, are located somewhere on earth, the metaverse **is** located in the nebulous of the World Wide Web because there is no centralized server to point to.

A metaverse that gives rise to communities in the nebulous of Web3 could one day contain legal states. The determination of whether a jurisdiction is considered a state is decided by international law.[[24]](#endnote-24) The Montevideo Convention on the Rights and Duties of States is the leading source of international law on this subject, and it sets out four qualifications of statehood: “(a) a permanent population; (b) a defined territory; (c) a government; and (d) capacity to enter into relations with other states.”[[25]](#endnote-25)

A cursory analysis would determine that the metaverse does not fit the Montevideo categories because nobody can enter the metaverse on foot making it foreign to any understanding of a populatable territory. However, the Montevideo Convention was created long before the invention of cyberspaces like the metaverse.[[26]](#endnote-26) This paper will apply the established international law principles to the cutting-edge reality of cyberspaces.

A community within the metaverse can establish a government satisfying the third requirement. Government is “the structure of principles and rules determining how a state… is regulated.”[[27]](#endnote-27) However, to meet the Montevideo standard, the established government must successfully exert control over the region through policing.[[28]](#endnote-28) A state in the metaverse can establish rules to regulate the state through voting and can effectively police the state by banishing offenders for specified periods of time. By establishing rules and policing them, the metaverse state has established a government.

A state within the metaverse would have the capacity to enter relations with other states satisfying the fourth requirement. The capacity to enter into relations elevates the state to a legal person, allowing it to take on rights and responsibilities.[[29]](#endnote-29) It has been argued that capacity is a consequence of statehood and not a requirement.[[30]](#endnote-30) Instead, customary international law looks towards independence to enter agreements without permission.[[31]](#endnote-31) Web3’s decentralization removes the metaverse from the control of any current state that would supersede independence to enter relations. States within the metaverse can exercise Web3’s inherent independence to gain the capacity to enter relations with other states. Even an attempt to shut down the metaverse, bringing it back into control of states in the physical world, would require the impossible scenario of every state cooperating in this endeavor.

1. A Permanent Population

A community in the metaverse could have a legally sufficient permanent population. While case law on the subject is lacking, scholars conclude that “[a]s long as a State’s population is a group of persons leading a common life and forming a living community, then it qualifies.”[[32]](#endnote-32) Additionally, the *superiorem nonrecognoscentes* criterion is required of the community members for them to be considered permanent.[[33]](#endnote-33) Essentially, the members must not recognize a higher authority, and the territory must possess the “effective authority” to resist any higher authority.[[34]](#endnote-34) For example, the Pitcairn Islands have a permanent population limited only to 50 individuals but have still achieved statehood because the 50 individuals live in a community on the island, and the individuals respect Pitcairn Islands’ *superiorem nonrecognoscentes*.[[35]](#endnote-35)

 A state within the metaverse can sustain a legally satisfactory permanent population. First, just like the Pitcairn Islands, a small but consistent group of individuals who base their livelihood and community within the metaverse would qualify as a permanent population. In a future where business is being transacted and socialization occurring within the metaverse the “leading a common life and forming a living community” standard can be satisfied without much imagination.

However, the legal rule was written in anticipation of populations physically located within a territory. However, as mentioned earlier, community members are located both at their physical locality through their physical body and in the nebulous of cyberspace through their avatars. Thus, they are in two locations and can be permanent residents in both locations. Since metaverse citizens cannot physically domicile in the Metaverse, the legal standard for “permanent” would be based on how much of their lives are spent in the cyberspace.

A good standard to estimate the magnitude of life spent that is required to make a population permanent focuses on the harm done to the individual if access to the space is taken away. A permanent population will experience great harm because their community and livelihood will be taken away if access is removed, while a transient population that is just there to experience the views will not experience any harms because their lives are not tied to the cyberspace. A community that relies on the metaverse for their livelihood, as most experts predict will exist, would experience great harm if denied statehood and can thus be a permanent population.

Additionally, the community members can be shown to meet the *superiorem nonrecognoscentes* criteria for their activities in the metaverse. Just as with the split in locality between the physical and the cyberspace, *superiorem nonrecognoscentes* can thus be divided into two localities as well. First, their actions in the physical realm will be governed by their local government, which has *superiorem nonrecognoscentes* of these acts. The acts that take place in Web3, however, are not governed by their local government. The anonymous, decentralized nature of Web3 leaves it completely free of outside influence, like the wildlands of uncharted territory. Our only rational conclusion is that these communities can rise up with “effective authority” and self-govern with *superiorem nonrecognoscentes*.

1. A Defined Territory

Communities within the metaverse can have defined territories if current international customary law changes. A legal state needs space for the permanent population to settle.[[36]](#endnote-36) It is not the size of the territory that matters because even minuscule territories like the Pitcairn Islands achieve statehood.[[37]](#endnote-37) Nor are ill-defined or poorly controlled borders a bar to statehood.[[38]](#endnote-38) Rather, legal scholars have determined that the territory must be “a naturally formed part of the Earth’s surface to qualify.”[[39]](#endnote-39) This disqualifies manmade structures at sea, celestial objects, and even such realms that may exist in cyberspaces.[[40]](#endnote-40)

Indeed, the word “territory” is defined in *Blacks Law Dictionary* as “the portion of the earth’s surface that is in a state’s exclusive possession and control.”[[41]](#endnote-41) However, these naturalist sources are reflective of customary law, which is “general practice accepted as law.”[[42]](#endnote-42) State practice is exclusively backward-looking and is subject to rapid change as technology opens up new avenues for state behavior.[[43]](#endnote-43) The Montevideo Convention states that only “a defined territory” is necessary, allowing states to adopt a much more relaxed standard for territory.[[44]](#endnote-44) In the most primitive definition, a territory is “[(1) an] area occupied by [(2)] a[]… group of animals, that… [(3)] they will defend against intruders.”[[45]](#endnote-45) Therefore, in the most primitive definition, all that is required is a definite space that a population defends against intruders.[[46]](#endnote-46) Sealand, a self-declared principality located on an offshore WWII-era British anti-aircraft platform, however, was declared to not have a defined territory even though its area was definite, was occupied by a group, and defended with firearms because its territory was not created “in a natural way.”[[47]](#endnote-47)

Under current customary international law, metaverse states cannot achieve statehood. The metaverse cannot, by definition, exist on the surface of the earth or even in the physical realm. This is because Web3 removes the cyberspaces from any centralized location on the globe. While detractors will consider a lack of territory on the surface of the globe an absolute block for cyberspaces becoming legal states, this is only based on current state practice, which can be amended through future state activity. The Montevideo convention allows for the primitive definition of territory, which has many advantages over the natural land approach by allowing for the flexibility to adapt to new access to territory in outer space and cyberspace.

Using the most primitive definition, a cyberspace on the metaverse can attain a defined territory status. The metaverse, like territories on the surface of our planet, can be broken into discrete zones. While, unlike the surface of the earth, there is potentially unlimited space, this does not limit the definiteness of the territory since boundaries are defined by exclusion. Access to areas in the cyberspaces of the metaverse can be granted and taken away in the same way as access to states during border crossings in the physical world. By denying access to an area, metaverse states gain a defined territory contained within it.

The metaverse satisfies the last element of the most primitive test because it can be defended against intrusions. Cyberspaces on the metaverse can be defended in analogous methods to physical violence through cyberwarfare, including the weaponization of cyber-physical infrastructure in the physical world.[[48]](#endnote-48) They can also defend themselves using retortions, which are legal responses that are “unfriendly” in an attempt to discourage undesired other state behavior.[[49]](#endnote-49) Examples of metaverse retortions could include denying a targeted state’s citizens access to the cyberspace or refusing to respect a targeted state’s intellectual property claims within the cyberspace.

However, just like in the case of Sealand, where the area was denied statehood despite meeting the most primitive definition of territory, states may choose not to modify their behavior just because developed technology allows them to. A fact favoring the modification of states’ behavior, in this case, is that, unlike Sealand, which was a tiny territory with no economic significance, the metaverse will contain a significant level of commerce. A retortion denying access to the metaverse could be potentially catastrophic for the economic output of a physical state. Therefore, physical states may be more willing to change their behavior to recognize established states within the metaverse in order to work with the state on important issues like intellectual property and banking law to ensure that the physical state’s interests are met.

1. Neal Stephenson, Snow Crash (1992). [↑](#endnote-ref-1)
2. *Id.* at 24. [↑](#endnote-ref-2)
3. *Id.* at 123. [↑](#endnote-ref-3)
4. Peter Kafka*, Neal Stephenson on Snow Crash, the Metaverse, and the Future of Tech*, Vox (Mar. 6, 2023), https://www.vox.com/technology/2023/3/6/23627351/neal-stephenson-snow-crash-metaverse-goggles-movies-games-tv-podcast-peter-kafka-media-column. [↑](#endnote-ref-4)
5. *The Metaverse*, https://about.meta.com/metaverse/ (last visited Oct. 4, 2024). [↑](#endnote-ref-5)
6. *See* Jonathan R. Wolpaw et al*., Brain–Computer Interface Technology: A Review of the First International Meeting*, 8 IEEE Transactions on Rehabilitation Engineering 164, 164 (2000). [↑](#endnote-ref-6)
7. Ling Zhu, Cong. Rsch. Serv., R47224, The Metaverse: and Issues for Congress 1 (2022). [↑](#endnote-ref-7)
8. *Id.* at 5. [↑](#endnote-ref-8)
9. *Id.* [↑](#endnote-ref-9)
10. *Id.* at 7. [↑](#endnote-ref-10)
11. *Id. at 11*. [↑](#endnote-ref-11)
12. *See The Metaverse Revolution: How Banks Can Tap into a $860 Billion Market*, EY (Apr. 26, 2023), https://www.ey.com/en\_gl/insights/financial-services/emeia/the-metaverse-revolution-how-banks-can-tap-into-a-860-billion-dollar-market. [↑](#endnote-ref-12)
13. *Decentraland: Exploring the Future of Virtual Real Estate*, Grayscale https://www.grayscale.com/research/reports/decentraland (last visited Oct. 4, 2024). [↑](#endnote-ref-13)
14. *See* Nick Kelly & Marcus Foth, *An Entire Pacific Country Will Upload Itself to the Metaverse. It’s a Desperate Plan – with a Hidden Message*, The Conversation (Nov. 16, 2022), https://theconversation.com/an-entire-pacific-country-will-upload-itself-to-the-metaverse-its-a-desperate-plan-with-a-hidden-message-194728. [↑](#endnote-ref-14)
15. *ArentFox Schiff Opens First Major Law Office in the Metaverse,* ArentFox Schiff(Oct. 31, 2022), https://www.afslaw.com/perspectives/press-releases/arentfox-schiff-opens-first-major-law-office-the-metaverse. [↑](#endnote-ref-15)
16. Janna Anderson & Lee Rainie, *The Metaverse in 2040*, Pew Research Center (June 30, 2022), https://www.pewresearch.org/internet/2022/06/30/the-metaverse-in-2040/. [↑](#endnote-ref-16)
17. *See id.* [↑](#endnote-ref-17)
18. *See* *The Metaverse*, https://about.meta.com/metaverse/ (last visited Oct. 4, 2024). [↑](#endnote-ref-18)
19. *How Servers Work: Not as Complicated as You Think*, Charter College, https://chartercollege.edu/news-hub/how-servers-work-not-complicated-you-think/. [↑](#endnote-ref-19)
20. *See* Optimal Pets, Inc. v. Nutri-Vet, LLC, 877 F. Supp. 2d 953, 962 (C.D. Cal. 2012) (“Thus, a sale to a customer through the internet will be considered a sale in the geographical area in which the customer is located.”). [↑](#endnote-ref-20)
21. *Id.* [↑](#endnote-ref-21)
22. Mark Fenwick & Paul Jurcys, *The Contested Meaning of Web3 and Why it Matters for (IP) Lawyers*, *Kluwer*

*Kluwer Copyright Blog* (January 27, 2022), https://copyrightblog.kluweriplaw.com/2022/01/27/the-contested-meaning-of-web3-why-it-matters-for-ip-lawyers/ (last visited October 4, 2024). [↑](#endnote-ref-22)
23. *Id.* [↑](#endnote-ref-23)
24. Montevideo Convention on the Rights and Duties of States, Dec. 26, 1933, 165 L.N.T.S. 19. [↑](#endnote-ref-24)
25. *Id.* [↑](#endnote-ref-25)
26. *Id.* [↑](#endnote-ref-26)
27. Black’s Law Dictionary 1611 (Bryan A. Gardner eds., 9th ed. 2009). [↑](#endnote-ref-27)
28. James Crawford, *The Criteria for Statehood in International Law*, 48 Brit. Y.B. Int’l L. 93, 116 (1977). [↑](#endnote-ref-28)
29. *See id.* at 119. [↑](#endnote-ref-29)
30. *Id.* at 119-20. [↑](#endnote-ref-30)
31. See Knox v. Palestine Liberation Organization, 306 F. Supp. 2d 424, 435 (S.D.N.Y. 2004) (“It is well-accepted under international law that, to meet the governmental control requirement, the entity must be capable of acting independently of foreign governments."). [↑](#endnote-ref-31)
32. David J. Bederman, International Law Frameworks 53 (3rd ed. 2010). [↑](#endnote-ref-32)
33. Guido Acquaviva*, Subjects of International Law: A Power-Based Analysis*, 38 Vand. J. Transnat’l

L. 215, 245 n.190 (2005). [↑](#endnote-ref-33)
34. *See id.* [↑](#endnote-ref-34)
35. *See* ***The World Factbook: Pitcairn Islands*, CIA,**https://www.cia.gov/the-world-factbook/countries/pitcairn-islands/ (last visited Oct. 5, 2024). [↑](#endnote-ref-35)
36. Ian Brownlie, Principles of Public International Law 70 (8th ed. 2012). [↑](#endnote-ref-36)
37. *See The World Factbook: Pitcairn Islands*, CIA,https://www.cia.gov/the-world-factbook/countries/pitcairn-islands/ (last visited Oct. 5, 2024). [↑](#endnote-ref-37)
38. *See* Deutsche Continental Gas-Gesellschaft v. Polish State, 5 Ann. Dig. Int’l L. Cas. 11 (1929). [↑](#endnote-ref-38)
39. David J. Bederman, International Law Frameworks 54 (3rd ed. 2010). [↑](#endnote-ref-39)
40. *See id.* [↑](#endnote-ref-40)
41. Black’s Law Dictionary 1611 (Bryan A. Gardner eds., 9th ed. 2009). [↑](#endnote-ref-41)
42. *See* Statute of the International Court of Justice, art. 38, June 26, 1945, 59 Stat. 1031, T.S. No. 993. [↑](#endnote-ref-42)
43. *See, e.g.* **Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, art. IX, Jan. 27, 1967, 610 U.N.T.S. 205 (holding that states are required to avoid harm to outer space).** [↑](#endnote-ref-43)
44. Montevideo Convention on the Rights and Duties of States, Dec. 26, 1933, 165 L.N.T.S. 19. [↑](#endnote-ref-44)
45. Michael Allaby, A Dictionary of Zoology 367 (5th ed. 2020). [↑](#endnote-ref-45)
46. *See id.* [↑](#endnote-ref-46)
47. *In re* Duchy of Sealand, 80 I.L.R. 683, 685 (1978). [↑](#endnote-ref-47)
48. *See, e.g.* Paulina Okunytė*, Anonymous Claims Hack on Israeli Nuclear Facility*, Cybernews (Mar. 21, 2024), https://cybernews.com/news/anonymous-israel-nuclear-facility-hack/ (stating decentralized hackers claim to have hacked Israels nuclear reactor). [↑](#endnote-ref-48)
49. *See* Jakub Spáčil, *Retorsion: An Underrated Retaliatory Measure Against Malign Cyber* Operations, 17 Baltic J.L. & Pol. 46, 48 (2024). [↑](#endnote-ref-49)