

The Metaverse

By Ava Tompkins | Technology and Society | March 2024

This research was supported by the Jamie Cassels Undergraduate Research Awards, University of Victoria. Supervised by Dr. Menno Hubregtse and Dr. Evanthis Baboula, Faculty of Fine Arts Technology and Society



University of Victoria

What is the Metaverse?

The Metaverse is a completely virtual space that blends aspects of augmented reality, mixed reality, and virtual reality technologies to deliver a surreal, shared universe wherein participants partake in a cohesive digital society. Physical technologies such as VR headsets, controllers, computers, and consoles serve as conduits for user interaction within the Metaverse. In theory, the Metaverse is like a secondary reality, similar to the one we live in right now, but entirely virtual. Within this space, socialization, economic activity, education, work, and various other activities will occur synchronously, directly mirroring the functions of a tangible reality.



Image Source: <https://www.nbcnews.com/tech/tech-news/meta-unveils-much-hyped-quest-mixed-reality-headset-rcna51740>

Important Note

The nature of this technology is purely hypothetical. The Metaverse has existed as a concept since 1992 when Neal Stephenson coined the term in his novel titled "Snowcrash". Since then, the term has been used to describe a virtual space that mirrors our lived reality in a digital atmosphere. Additionally, it is important to note that the biggest contributor to the Metaverse's development is Meta, the technology company founded by Mark Zuckerberg. The Metaverse is currently in an early development phase, but has yet to reach its full design potential.

Research Questions and Methodology

How will people engage with each other within the Metaverse and how will our behaviour within the virtual realm differ from the life we live in the physical world? What are some benefits and risks of its implementation, and what might the future of the Metaverse look like?

In this research, the Metaverse is analyzed through a literature review and through the lens of a conceptual framework that outlines the Metaverse's affordances.

Moreover, this study draws upon recent analyses of social media platforms outlined by Zallio and Clarkson (2022) and Zulli and Zulli (2020). Additionally, Sörum and Fuentes (2017) and Davis (2020) employ the concept of "affordances" to consider how these tools encourage certain types of social engagement and behaviours.

Potential Benefits

Accessibility

The ability to carry out daily tasks from the comfort of home presents significant advantages to individuals who face physical and/or mental barriers that impede their ability to commute to work, socialize in large groups, or complete their daily activities.

Environmental

Entering a digital landscape oftentimes does not require a user to leave their home. Therefore, daily transportation will not be required as activities will take place virtually. Consequently, the realization of the Metaverse will likely reduce global carbon emissions. However, the data centers that facilitate the transmission of information within the Metaverse use an enormous amount of energy and water (Cubitt et al., 2011).

Socialization

With the Metaverse, users can socialize virtually from anywhere in the world. Traditional long-distance relationships will be a thing of the past. The Metaverse grants us the ability to visit friends, family, colleagues and anyone else we desire to meet, in real time and from the comfort of our own homes.



Image Source: <https://www.forbes.com/sites/forbestechcouncil/2022/09/08/why-the-future-of-work-could-take-place-in-the-metaverse/?sh=b11ac513bcf2>

Potential Risks

Physical

The VR technology that is required to gain access to the Metaverse may cause physical harm to the user. VR headsets are commonly used when engaging in virtual reality settings, and for some users, these devices may cause motion sickness, eye strain, and nausea. Furthermore, users may subject themselves to physical harm as consequence of colliding with surrounding obstacles in the space where VR technology is being used.

Social Stratification

As VR technology is often expensive, the implementation of a standardized, digital reality, may be inaccessible to individuals with lower incomes. This could cause these groups to be further ostracized by society, consequently creating a larger gap between economic classes.

Security Concerns

Every action conducted within the Metaverse is subject to tracking and data collection. While Meta, the primary funder of the Metaverse, states that their VR technology only collects necessary data to enhance user experience (Meta, 2024), the exact use of this data remains unknown to the public.

Example

The video game VRChat is a virtual world that allows users to create and customize digital avatars and interact with one another. This gives us a brief idea as to what the Metaverse may look like.



Image Source: https://goodtopssm.life/product_details/18052073.html

References

- Cubitt, S., Hassan, R., & Volkmer, I. (2011). Does cloud computing have a silver lining? *Media, Culture & Society*, 33(1), 149–158. <https://doi.org/10.1177/0163443710382974>
- Davis, J. (2020). *How Artifacts Afford: The Power and Politics of Everyday Things*. MIT Press.
- Supplemental Meta Platforms Technologies Privacy policy*. Meta. (n.d.). <https://www.meta.com/ca/legal/privacy-policy>
- Sörum, N., & Fuentes, C. (2017). Write Something. In *Digitalizing Consumption How devices shape consumer culture* (1st ed., Vol. 1, . 144–166), Routledge.
- Zallio, M., & Clarkson, P. J. (2022). Designing the metaverse: A study on inclusion, diversity, equity, accessibility and safety for digital immersive environments. *Telematics and Informatics*, 75, 101909. <https://doi.org/10.1016/j.tele.2022.101909>
- Zulli, D., & Zulli, D. J. (2020). Extending the internet meme: Conceptualizing technological mimesis and imitation publics on the TikTok platform. *New Media & Society*, 24(8), 1872–1890. <https://doi.org/10.1177/1461444820983603>

Diversity and Inclusion

Zallio and Clarkson (2022) give insight into why equity, diversity and inclusion must be considered during the Metaverse's development. The design of physical technologies such as VR headsets should accommodate users of all ages, genders, and body types. Moreover, the authors discuss how these technologies can be designed to be accessible for users with low digital literacy proficiency. Lastly, Zallio and Clarkson (2022) propose the incorporation of Reality Distortion Filters and Virtual Personal Protected Spaces to safeguard users from undesirable behaviours and to strip the Metaverse of harmful or unwanted content.