Simulating Existence: How AR/VR Technologies Challenges And Will Challenge Our Understanding Of Reality And Power

Apple Vision Pro & Meta Quest 3

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1. Introduction

Have you ever wondered if the world we all inhabit is truly real? This thought has been explored in science fiction films for decades, with films like "The Matrix" depicting a simulated reality (Laist 2012; Wachowski & Wachowski 1999). Morpheus explains to Neo, the protagonist, in a scene in the first movie, that Neo lives in a world that is created by a “neural-interactive simulation.” Where his brain activity is put into a simulation of the year 1999. A year before that, a movie called “The Truman Show” premiered that followed the life of Truman Burbank, who lives in a reality that is set in giant movie set where everyone around him is an actor and all houses and objects are props (Stamatov 2019; Weir 1998).

The idea of hyperreality, a world shaped by media and technology, is more relevant than ever. Today, with over 6.8 billion smartphones in use and the average American spending 5-6 hours daily on them, our reality can be whatever we see on those screens (GilPress 2024). While smartphones do not offer a fully immersive experience, recent technologies like Apple's Vision Pro and Meta's Quests are getting closer to this. These utilize Augmented Reality (AR) and Virtual Reality (VR) technologies, which live up to their names (Calderón 2024). AR alters your reality, while VR takes over completely. AR experiences are characterized by adding a layer to reality, whereas VR simulates a different “virtual” (digital) reality.

Both "The Truman Show" and "The Matrix" depict realities controlled by unseen forces. In "The Truman Show," a single creator, Christof, controls Truman's entire life. In "The Matrix," machines manipulate a simulated world for humans. Mark Zuckerberg's vision for the Metaverse shares some similarities. While he emphasizes social interaction (Calderón 2024), the Apple Vision Pro, with its focus on individual experiences through Memojis, seems to prioritize human isolation over connection. This potentially dehumanizes the world and follows a transhumanist

movement, as explained in the text by Bostrom (2005). This is interesting and relevant as this leans towards a dystopian idea of the future, based on the understanding of that concept by Gertz (2018).

In this essay, I argue that the utopian idea of humans using AR/VR technologies holds great power and will make an immense impact on reality as we know it. I wonder about the question: "How will AR/VR technologies influence our understanding and experience of reality?" Drawing on Plato's (2000) "Allegory of the Cave" and Baudrillard's (1988, 169) "Desert of the Real" will lead the essay to form a basic understanding of the media objects taken as an example. Langdon Winner's (1980) and Foucault's (1978) work will help understand the power these technological tools hold, while Nick Bostrom's (2005) ideas on transhumanism will explain the instrumentalist approach to using technology, and Hayles (1999) will complement with her concept of posthumanism. This essay examines the connections between these authors' ideas, with each section of the main body focusing on a complementary pair.

2. Main body

2.1 Hyperreality Theory

Close your eyes and imagine your "Back to the Future" like future, thinking of what your 2050 looks like (Zemeckis 1985). You put on a VR headset and find yourself in a fantasy alien like world, far away from the historical Parisian Street scene your Apple Vision Pro usually displays during your metro commute (See Figure 1). This idea of a (future) world where we all wear Apple Vision Pro VR headsets, as seen in Apple's commercial, seems a bit to "Back to the Future" like at first glance.

Plato's "Allegory of the Cave" resonates strongly in the example of the Parisian commute or fantasy alien world (Plato, Ferrari, & Griffith 2000). We, like Plato's prisoners, are chained to

flickering shadows, not firelight on a cave wall, but digital representations on our screens. However, unlike Plato's hopeful escape to a world of true forms, Jean Baudrillard paints a bleaker picture. In his view, escape from the cave leads not to enlightenment, but to a barren "Desert of the Real" (Baudrillard 1988).

AR/VR exemplify this. These technologies blur the line between the simulated and the real in a way that Plato could never have imagined. The Parisian Street scene might enhance your walk, providing historical information, the weather, news or cultural tidbits (See Figure 2). But is it enhancing reality or replacing it altogether?

Based on Baudrillard's (1988) arguments we are creating a hyperreality, a world of simulations so pervasive that the distinction between real and fake fades away. We become accustomed to these fabricated experiences, making the original "real" seem fake in comparison. This is where Plato's allegory falls short. There is no easy escape from the cave of hyperreality. Even if you remove the VR headset, the experience alters how you perceive the world. The Parisian Street might seem unexciting compared to its augmented counterpart, lacking historical and informational overlays or vibrant details. We crave the heightened experiences technology offers, risking a world where the "real" becomes a boring imitation, a desert devoid of the vibrancy we have grown accustomed to in the simulated world. The allure of the virtual threatens to overshadow the richness of the actual, the unfiltered experiences, the spontaneous interactions, the sensory details that define our physical world.

This raises a crucial question: are we becoming passive consumers of prefabricated experiences, or can we embrace technology to create a richer, more meaningful reality? Can AR and VR be tools for exploration and learning, for enhancing our understanding of the world around us? Perhaps the key lies in striking a balance. We must acknowledge the seductive power of hyperreality while recognizing the irreplaceable value of the authentic. By using technology to

enhance, rather than substitute for, reality, we can create a virtual world that enriches the physical world, not overshadowing it.

By critically engaging with Baudrillard's ideas and recognizing the limitations of Plato's allegory, we can navigate this new digital age with a sense of purpose. We, together, can strive to create a future where technology empowers us to experience the world in new and profound ways, without sacrificing the genuine connections and experiences that define that human existence that we call ours.

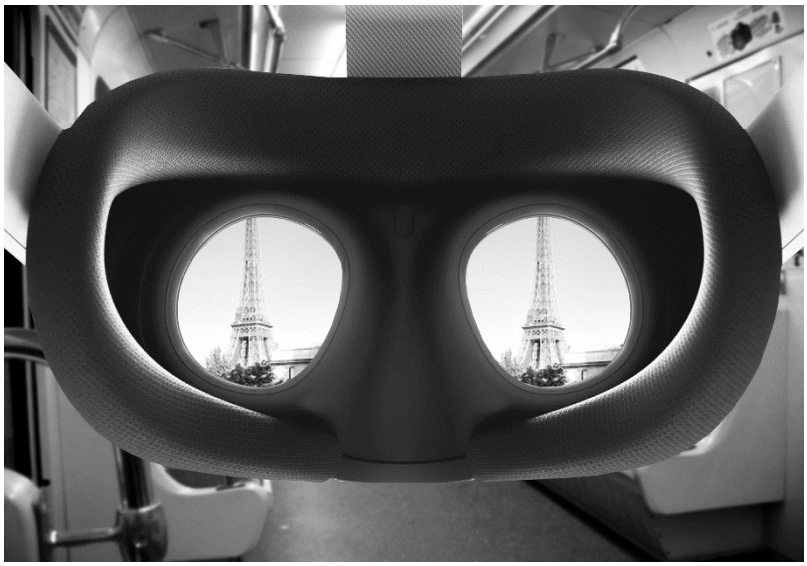

Figure 1. *Meta Quest Perspective of Parisian Street in Metro with VR technologies.* Self-created example using assets from Kamen (2023), Rovács (2009) and BlackBoxGuild (2023).

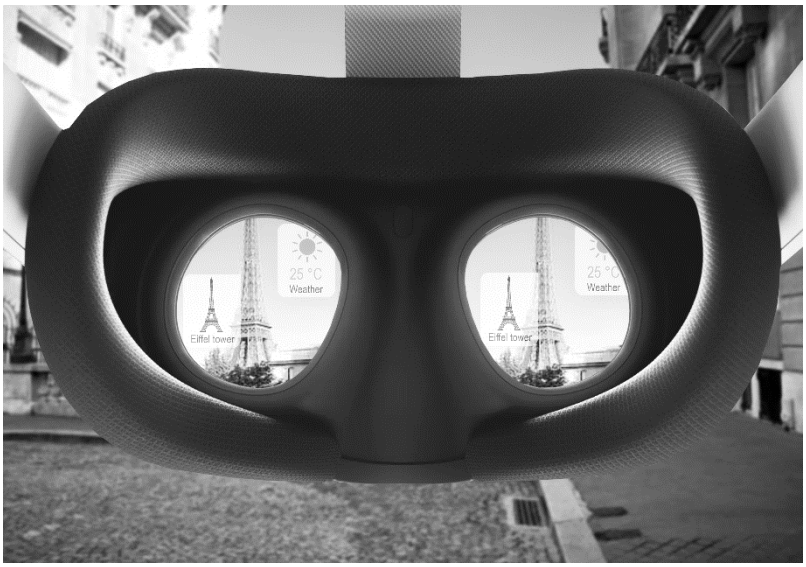

Figure 2. *Meta Quest Perspective in Parisian Street with AR technologies.* Self-created example using assets from Kamen (2023), BlackBoxGuild (2023), Gallery.Yopriceville (n.d.) and Iboma (n.d.).

2.2 Power and Politics

Referring back to the movie “The Truman Show,” the world that Truman lives in is controlled. It is curated by the director Christoff and every action is thought of. However, these immersive experiences raised concerns in the movie about the power and the manipulation of Truman’s reality. These concerns resonate with the ideas explored by Langdon Winner in his seminal work "Do Artifacts Have Politics?" (1980) and Michel Foucault's analysis of power in "The History of Sexuality" (1978).

Winner argues that technologies are not neutral entities; they actively shape how we perceive and interact with the world. In the example of Meta Quest and Apple Vision Pro, AR experiences, despite their immersive and life-like nature, are inherently also curated experiences. They prioritize specific narratives, potentially erasing or downplaying alternative perspectives.

This aligns with Foucault's notion of power extending beyond forcing. Power, according to Foucault (1978), operates through the control of discourse, which is the production and dissemination of knowledge. VR experiences, for example, become objects where the creators hold immense power to shape these virtual realities. Who gets a digital voice? Whose and what experiences are deemed worthy of representation? These are crucial questions demanding consideration.

The ease with which AR/VR can manipulate perception further complicates this issue. Imagine an Apple Vision Pro augmented tour displaying a historical building and it is sanitized of its messy reality. A sanitized historical narrative has been taken hold and erasing the evidence of past struggles. The line between educating and entertaining blurs, raising questions about the potential for correct historical representation. Winner and Foucault would urge us to be critical consumers of these experiences. We must ask ourselves: who controls the narratives presented in AR/VR? How do these narratives potentially reinforce existing power structures and marginalize alternative perspectives?

Bruno Latour's (Jim Johnson's) (1988) work on the sociology of a door-closer offers another insightful perspective through which to examine AR/VR. Latour argues that seemingly "insignificant objects," like a door-closer, are not neutral but actively shape social interactions. Similarly, AR/VR experiences, through their design and functionality, can influence how we perceive and interact with the world. The way these technologies curate information and prioritize narratives can become a subtle form of control, aligning with Winner's concept of technology politics.

Furthermore, the immersive nature of AR/VR can create a sense of "hyperreality", a world constructed entirely of simulations, blurring the lines between real and artificial (As Plato mentions in his "Allegory of the Cave"). This raises concerns about the potential for example

historical experiences to become entertainment spectacles, devoid of critical engagement with the past. The challenge lies in embracing the power of AR/VR for meaningful explorations of history. By acknowledging the influence of technology and the potential for manipulation, we can ensure that these experiences foster genuine understanding rather than simply passive consumption. Additionally, encouraging critical thinking skills and historical and media literacy can empower users to analyze and question the narratives they encounter in the digital realm.

Ultimately, navigating the intersection of power, politics, and hyperreality in AR/VR requires a balanced approach. By once again recognizing the potential pitfalls and actively engaging with these experiences. The power to create truthful AR/VR experiences is truly in the hands of the creator of the experiences.

2.3 Transhuman and Posthuman Ideas

Imagine putting on a Meta Quest 3 and experiencing that Parisian Street, or effortlessly translating things to French in real-time with Apple Vision Pro. These experiences connect with the ongoing debates surrounding transhumanism and posthumanism (Bostrom 2005; Hayles 1999). Transhumanism, as mentioned by Nick Bostrom (2005), advocates for the well-being of all conscious beings, pushing human capabilities beyond their current limitations. Here, Meta Quest's cognitive enhancement applications become intriguing. By blurring the lines between human and machine capabilities, they raise the possibility of augmented cognition, which is the use of technology to improve our senses, memory, or processing power. This aligns with transhumanist ideals, potentially using it in the future era of enhanced human potential. An idea by Bostrom (2005, 7) illustrates this idea of augmented cognition:

> “It may then be possible to upload a human mind to a computer, by replicating in silico the detailed computational processes that would normally take place in a particular human

> brain. […] Uploads might live either in virtual reality or directly in physical reality by controlling a robot proxy."

Katherine Hayles (1999) injects a note of caution with her concept of posthumanism. She posits a future where technology fundamentally alters what it means to be human. Apple Vision Pro's seamless language translation exemplifies this. Are we becoming reliant on technology to mediate even fundamental aspects of communication, potentially eroding the very essence of human interaction, and understanding? Replacing the need to learn a foreign language?

Further complicating the picture is Gertz's critique (2018) of utopian visions of technological progress. While AR/VR offers exciting possibilities, we must consider the potential downsides. Do these technologies enhance human connection, or do they create a sense of isolation by prioritizing virtual experiences over lived ones? Bostrom's focus on well-being becomes crucial here (2005, 12). How can we ensure that technological advancements benefit everyone and do not exacerbate existing inequalities? As

> "Transhumanism advocates the well-being of all sentience, whether in artificial intellects, humans, and non-human animals (including extraterrestrial species, if there are any). Racism, sexism, speciesism, belligerent nationalism, and religious intolerance are unacceptable" (Bostrom 2005, 12).

The allure of transhuman potential should not blind us to the need for critical reflection on the impact AR/VR has on our values and the very definition of human existence.

Now imagine navigating a virtual office in the Metaverse while simultaneously using your Meta Quest 3 to translate real-time conversations. This scenario embodies Hayles' concept of "hyperattention" (1999). Defined as a state of low boredom tolerance and constant stimulation seeking, hyperattention thrives in AR/VR environments that bombard us with information across multiple layers. While multitasking can feel productive, Hayles argues it can negatively impact our ability to focus deeply and engage critically with information. So, when you find yourself immersed in an AR or VR work experience while checking your email, watching a Netflix show,

writing an essay likes this, consider whether you're enriching your experience or surrendering to the whirlwind of hyperattention (See Figure 3).

The future of humanity in the age of AR/VR lies at the intersection of transhuman and posthuman ideas. By fostering well-being, embracing technological enhancements responsibly, and remaining mindful of potential pitfalls, we can navigate this digital AR/VR frontier and create a future where technology empowers us without compromising our core humanity.

Figure 3. *Meta Quest Perspective of Hyperattention workspace with AR Technologies.* Self-created example using assets from Kamen (2023), Truly (2022), SeekPNG (n.d.) and icon ade (n.d.).

Conclusion

The rise of Augmented Reality and Virtual Reality technologies confronted us with a fundamental question: "How will AR/VR technologies influence our understanding and experience of reality?" This essay has explored this question through the lens of philosophy and technology, drawing insights from Plato's "Allegory of the Cave," Jean Baudrillard's theories of hyperreality, Langdon Winner's (1980) analysis of technological politics, Foucault's (1978) paper on the notion of power, Nick Bostrom's ideas on transhumanism, and Katherine Hayles' concept of posthumanism.

While AR/VR offer enticing possibilities for exploration, learning, and even transcending human limitations, there are a lot of potential pitfalls to consider. The technologies can create a "hyperreality," a world with simulations that blur the lines between real and fake. This asked for the question: are we becoming passive consumers of prefabricated experiences, or can we embrace technology to enhance our understanding of the authentic world? The answer likely lies in achieving a balance. We can leverage AR/VR to enrich our lives without sacrificing the richness of physical experiences.

The immersive nature of AR/VR also raises concerns about power and representation. Who gets to curate these experiences? Whose stories are deemed worthy of inclusion? As Langdon Winner argues, technologies are not neutral, but they exert power by shaping our perception of the world. By acknowledging the inherent biases embedded in technology and encouraging history and media literacy, we can ensure that AR/VR experiences offer a platform for genuine understanding, rather than sanitized, misleading, or enhanced narratives.

The potential of AR/VR to enhance human capabilities aligns with transhumanist ideals. Imagine using Meta Quest to sharpen your senses or Apple Vision Pro to translate languages effortlessly. However, Katherine Hayles' (1999) concept of posthumanism cautions against a

future where technology fundamentally alters what it means to be human. Are we becoming reliant on technology for even basic aspects of communication, potentially eroding the value of human interaction and learning? The key lies in embracing technology responsibly. Transhumanist goals of well-being must be central to our approach. AR/VR advancements should strive to benefit all of humanity, not exacerbate existing inequalities (Bostrom 2005, 12). Furthermore, we must remain careful with the seductive pull of hyperattention, where AR/VR environments bombard us with information, potentially hindering our ability to focus and engage meaningfully with the world around us.

Finally, it is once again crucial to remember that AR/VR are tools, not replacements for lived experiences. The richness of human connection, the unfiltered beauty of the natural world, the spontaneous joy of a shared conversation. These are all irreplaceable aspects of our humanity. We must strive for a future where AR/VR complement these experiences, not replacing them. Imagine a world where VR allows us to connect with loved ones across continents but fosters a deeper appreciation for in-person interactions. Imagine AR enriching our walks through the park, providing useful information about the environment, but also allowing us to truly disconnect from technology and simply enjoy the moment. This is the future we should strive for, a future where humans and technology coexist.

The future of AR/VR lies in the space between transhuman and posthuman ideas. By prioritizing human well-being, embracing technology critically, and remaining mindful of its potential drawbacks, we can create a future where technology coexists with our humanity. Evoking the iconic vision of “Back to the Future II” s 2015, our future might hold a reality where it bears no resemblance to the one we will actually experience. Only time will tell (And perhaps future research could also gain more insights into other potential drawbacks of these technologies).

Bibliography

Baudrillard, Jean. 1988. “Simulacrum and simulations.” Jean Baudrillard, Selected Writings, edited by Mark Poster. Oxford and Cambridge: Polity Press, 1988. 169-175.

BlackBoxGuild. 2023. Famous Eiffel Tower From Rue de l’Université Street In Paris, France.... https://www.istockphoto.com/nl/video/famous-eiffel-tower-from-rue-de-luniversit%C3%A9-street-in-paris-france-gm1468697492-500144590.

Bostrom, Nick and Philosophy Documentation Center. 2005. “Transhumanist Values.” *Journal of Philosophical Research* 30 (9999): 3–14. https://doi.org/10.5840/jpr_2005_26.

Calderón, Miguel Ángel G. 2024. “Apple Vision Pro: Where Are We Going? | Blog of the APA.” February 5, 2024. https://blog.apaonline.org/2024/02/05/apple-vision-pro-where-are-we-going/.

Foucault, Michel. *The history of Sexuality. Volume 1: An Introduction.* New York, Pantheon, 1978. 17-35 (Chapter 1: The Incitement to Discourse)

Gallery.Yopriceville. n.d. Transparent Eiffel Tower Silhouette PNG Clip Art Image. Accessed May 31, 2024. https://gallery.yopriceville.com/Free-Clipart-Pictures/Valentine-s-Day-PNG/Transparent_Eiffel_Tower_Silhouette_PNG_Clip_Art_Image.

Gertz, Nolen. 2018. *Nihilism and Technology*. Rowman & Littlefield International. https://research.utwente.nl/en/publications/nihilism-and-technology.

GilPress. 2024. “How Many People Own Smartphones? (2024-2029).” January 31, 2024. https://whatsthebigdata.com/smartphone-stats/.

Hayles, Katherine. 1999. “How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics.” 1999. https://press.uchicago.edu/ucp/books/book/chicago/H/bo3769963.html.

Iboma. n.d. sun-icon-clipart-md. Accessed May 31, 2024. https://iboma.com/sun-icon-clipart-md/.

icon ade. n.d. “Download a Desk Stacked with Books for Studying for Free.” Vecteezy. Accessed May 31, 2024. https://www.vecteezy.com/photo/32932763-a-desk-stacked-with-books-for-studying.

Johnson, Jim. 1988. “Mixing Humans and Nonhumans Together: The Sociology of a Door-Closer.” *Social Problems*, January.

https://www.academia.edu/39557413/Mixing_Humans_and_Nonhumans_Together_The_Sociology_of_a_Door_Closer.

Kamen, Matt. 2023. Meta Quest 3 Review: Huge Hardware Bump, But Who's It For? https://www.wired.com/review/review-meta-quest-3/.

Laist, Randy. 2012. "Bullet-Time in Simulation City: Revisiting Baudrillard and The Matrix by Way of the 'Real 1999.'" *Alphaville: Journal of Film and Screen Media*, no. 2 (February), 1–15. https://www.alphavillejournal.com/Issue%202/HTML/AbstractLaist.html

Plato, G. R. F. Ferrari, and Tom Griffith. 2000. *The Republic*. Cambridge Texts in the History of Political Thought. Cambridge ; New York: Cambridge University Press.

Rovács, Barna. 2009. English: A Renewed Soviet Train, Saint Petersburg Metro, Russia. Own work. https://commons.wikimedia.org/wiki/File:Pityer_Metro_inside.JPG.

SeekPNG. n.d. "Arm Png PNG Image | Transparent PNG Free Download on SeekPNG." SeekPNG.Com. Accessed May 31, 2024. https://www.seekpng.com/ipng/u2a9o0u2t4t4q8e6_arm-png/.

Stamatov, Aleksandar. 2019. "Laozi and Truman: A Hyperrealist Perspective." *Open Journal of Philosophy* 9 (2). https://www.scirp.org/journal/paperinformation?paperid=92329.

Truly, Allen. 2022. "Are Quest Pro's Virtual Screens Better than Real Monitors?" Digital Trends. October 22, 2022. https://www.digitaltrends.com/computing/quest-pros-virtual-screens-versus-real-monitors/.

Turner, Cody. 2022. "Augmented Reality, Augmented Epistemology, and the Real-World Web." *Philosophy & Technology* 35 (1): 19. https://doi.org/10.1007/s13347-022-00496-5.

Wachowski, Lana, and Lilly Wachowski. 1999. The Matrix. United States: Warner Bros.

Weir, Peter. 1998. The Truman Show. United States: Paramount Pictures.

Winner, Langdon. 1980. "Do Artifacts Have Politics?" *Daedelus* 109 (1). MIT Press. https://faculty.cc.gatech.edu/~beki/cs4001/Winner.pdf.

Zemeckis, Robert. 1985. Back to the Future. United States: Universal Pictures.