

# Review of: "Beyond the Physical Self: Understanding the Perversion of Reality and the Desire for Digital Transcendence via Digital Avatars in the Context of Baudrillard's Theory"

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Potential competing interests: No potential competing interests to declare.

## Purpose

The purpose is clearly stated at the beginning of the manuscript. "This paper explores the perversion of reality in the context of advanced technologies, such as AI, VR, and AR, through the lens of Jean Baudrillard's theory of hyperreality and the precession of simulacra."

## Relevance

The author provides a relevant discussion of a topic of interest due to the increasing use of technology as a lens to perceive and reshape reality.

## General Comments

Baudrillard's concepts of simulacra, simulation, and hyperreality are clearly explained and explored in section 2 of the manuscript; however, I believe further clarification is needed.

First, section 3 is confusing. The author explains his understanding of augmented reality, artificial intelligence, and mixed reality. While the three concepts can affect the perception of reality through the development of simulacra, simulation, and hyperreality, I believe they are different. First, the author does not clearly differentiate between augmented, mixed, and virtual reality. While there is a virtual reality continuum between a real environment and a virtual one, these technologies will be placed in different spaces within that continuum. I suggest looking at "Milgram, P., & Kishino, F. (1994). A taxonomy of mixed reality visual displays. *IEICE TRANSACTIONS on Information and Systems*, 77(12), 1321-1329." Using this lens, everything is mixed reality (MR), as the author states, so what is the relevance of differentiating them? A more accurate definition of our era could be extended reality (XR), where multiple layers are juxtaposed to a perceived reality.

Second, while AI and its generative algorithms contribute to feeding vast amounts of data to create more realistic or immersive realities, it is not a visualization layer (AR, VR, or XR) itself. I agree that AI is reshaping how we perceive new realities by creating new outcomes from huge amounts of information. Still, the author needs to clarify that AI affects the

realism dimension of presence rather than that of self-presence. I recommend Slater, M., & Wilbur, S. (1997). A framework for immersive virtual environments (FIVE): Speculations on the role of presence in virtual environments. *Presence: Teleoperators & Virtual Environments*, 6(6), 603–616.

Third, I suggest clearly distinguishing between self-avatars and external avatars or NPCs as defined in the manuscript. Since AI is an influencer of reality but not a reality, how it affects different types of avatars is completely different. Also, sometimes, the author mentions chatbots as a representation of avatars, while these are not. An avatar by definition, is a visual personification of an individual or character in a digital world.

Fourth, the author needs to be coherent in the manuscript's flow. The purpose of the abstract addresses how advanced technologies, such as AI, VR, and AR, affect the perception of reality, while the research question only focuses on AR and AI, and we see MR and VR included later in the manuscript. Terms must be defined precisely and should not be used interchangeably throughout the document. A good example of the unclarity with the definitions is found on page 7 “MR represents a technological advancement over AR by transcending the mere overlay of digital content onto the physical world, which is the distinguishing trait of Augmented Reality. Instead, MR provides an immersive platform where users can engage with digital objects as if they were integral components of the physical world.” AR per nature is a mixed reality where a digital layer is juxtaposed with the physical one. Furthermore, AR is interactive since we can manipulate objects (digital or real) to create a new reality. An example of this resemblance is the IKEA app, where we can place digital objects in a physical space and move them around.

Fifth, the author needs to clarify the ontology of some ideas. For example, on page 15, he says: “In the virtual world, our sensory experiences and physical interactions are replaced by digital interactions and experiences. We perceive the virtual world through our digital avatars, and we interact with it through digital interfaces.” While in the virtual world, the interactions are of a digital nature, they are still sensory and physical (this is the significant advancement of immersive realities). Feeling there and behaving as one would in the real world is the nature of embodiment within immersive environments (XR). Unless the author refers to mouse-screen interactions in which the embodiment factor is extremely low. If this were the case, it would not pertain to this manuscript.

### **Method of Inquiry**

There is no method of inquiry beyond a philosophical essay, not with this that the text has no value. The manuscript delves into a relevant issue and creates a starting point for discussing the negative (or positive) influences that visualization technologies can have on human behavior and societies.

### **Clarity**

The manuscript is written in clear language. It is highly repetitive and redundant with the examples (e.g., Lil Miquela or Worlds Beyond). The acronyms and the introduction of terms are not sequential and trouble the reader (e.g., sometimes we find MR, others mixed reality / AI-powered or AI-powered. The abstract talks about AI, VR, and AR, while the text mainly discusses AR, AI, and MR. You introduce the acronym VR in section 3.3 without any previous explanation, etc.) Overall, the text must be revisited and condensed to eliminate repetitive information, typos (section 3.1, first paragraph),

etc.

### **Significance**

I find the manuscript interesting for discussion, but I suggest a thorough revision to clarify the message.