


Bridging Realities: From Historical Digital Entities to the Tangible Hybridity of Web 3.0 Objects

Saša Josifović 

- 1 In the digital age, the boundaries of 'reality' are continually expanding and transforming. David Chalmers' "Reality+" (Chalmers 2022) ventures into the heart of this evolution, probing the essence of digital objects. My contribution to this book symposium is an extension and affirmation of Chalmers' inquiry, offering a nuanced perspective that distinguishes between the digital artifacts of the past and the novel entities of Web 3.0. Central to this discussion are Non-Fungible Tokens (NFTs), which I contend embody a robust form of reality, substantiated by their unique capacity for causal interaction across both digital and non-digital realms.
- 2 Historical digital objects, from the pixelated artworks of the earliest computers to the iconic characters inhabiting the inaugural video games, marked our first foray into the digital realm. These pioneering entities, while trailblazing, prompt intricate philosophical inquiries when viewed through the prism of identity and enumeration—fundamental notions within philosophical debate.
- 3 These digital forerunners serve not only as cultural milestones but also as subjects for profound metaphysical speculation. The Kantian and Aristotelian categories of quantity—unity (Einheit) and plurality (Vielheit)—are traditionally employed to dissect the ontological status of objects. In this classical view, unity implies the individual existence of an entity as a discrete, identifiable whole, whereas plurality refers to the existence of multiple, countable, and distinct instances of an entity, with number serving as the schema of magnitude (quantity) (Kant 1998, page B 182). Yet, historical digital figures such as Super Mario confound these categorical distinctions (Josifović, n.d.). They occupy a liminal space that is neither purely singular nor wholly plural, challenging the classical criteria of quantifiability that underpin metaphysical reality in traditional philosophy. This ambiguous status subverts the application of further categories such as Causality, Dependence, and Existence—without a stable ontological identity and a capacity for enumeration, these digital entities resist conventional philosophical categorization. They do not interact with other entities in a manner traditionally associated with causation or dependency, nor do they possess a mode of existence easily articulated by these philosophical frameworks.

Consequently, historical digital objects inhabit a distinctive and somewhat paradoxical niche in the discourse on reality, straddling the digital and the conceptual in a way that compels us to re-evaluate our understanding of existence itself.

- 4 While Chalmers highlights the causal powers of virtual objects, suggesting that their interactivity and perceptual features lend them a form of reality—citing Philip Brey's view on virtual objects as interactive rather than merely fictional ([Chalmers 2022, 182](#))—I maintain a skeptical stance on this notion. The interactivity observed between virtual entities, such as a virtual bat striking a virtual ball, indeed simulates a form of interaction. However, this interaction remains confined within the digital domain, governed by programmed algorithms and user input, rather than by the natural laws that govern physical existence. Furthermore, the psychological responses elicited by virtual objects, like the fight-or-flight reaction to a virtual gun, are indeed real experiences but do not confer ontological status to the objects themselves. Such effects are akin to the emotions stirred by fictional characters and events in a film—they are real in their impact on the viewer's emotional state but do not elevate the fictional representations to the level of tangible reality. The virtual gun, in this context, is not more 'real' than any other arbitrary fictional object; its existence and effects are bounded within the psychological realm of the user's experience, distinct from the causal interactions we attribute to physical objects in the world. The reality it possesses is of a different order—one that is interactive and perceptually rich, certainly, but ultimately, it remains a construction within a carefully orchestrated digital environment rather than an entity with the ability to exert influence within the physical world.
- 5 Therefore, while acknowledging Chalmers' and Brey's ([Brey 2003](#)) insights into the social ontology of virtual environments, my position diverges in the interpretation of 'realness.' The essence of what makes an object 'real'—its capacity to stand in causal relations with entities across both digital and non-digital realms and to exhibit causal effects within the non-digital world according to economic laws and societal norms—is not fully captured by the psychological interactivity of virtual objects.

Non-Fungible Tokens: Articulating a New Ontological Paradigm

- 6 The transition from Web 2.0 to Web 3.0 is marked by the advent of blockchain technology, a catalyst for the emergence of Non-Fungible Tokens (NFTs)—digital artifacts that signify a substantial paradigm shift in the convergence of digital and tangible realities ([Tapscott and Tapscott 2016](#)).
- 7 NFTs, as unique digital assets inscribed upon the blockchain, possess an indelible path that renders them quantifiable and distinct, endowing them with an ontological identity unprecedented in historical digital objects ([Werbach 2018](#)). Consider the evolution of a character such as Super

Mario: originally an archetype replicated across myriad gaming systems, lacking a quantifiable essence. In the realm of NFTs, however, such a character transcends its native digital canvas, possibly evolving into a finite collection of singular entities, each endowed with a distinct identity and intrinsic value.

8 The economic significance of NFTs is complex and layered; they are not only commodities within digital marketplaces but also possess "utilities" that bridge the digital and tangible realms (Werbach 2018). These utilities not only confer exclusive privileges like event access and goods entitlements but also embed the token with real-world value, thereby blending digital ownership with tangible experiences. An NFT, for example, could provide special access to concerts or travel opportunities, making the token's utility a core element of its worth.

9 NFTs represent a novel category of hybrid objects, which should not be conflated with augmented reality experiences. Their distinction lies in their inherent capacity to form causal relationships with both digital and non-digital entities, exerting real-world influence and effects governed by economic principles.¹ Such interactions underline the dual nature of NFTs as both digital assets and agents of real-world consequence, thereby signaling a significant shift in the ontology of digital artifacts.

10 This duality is exemplified by their integration with real-world events and goods. NFTs, thus, substantiate their reality by transcending the digital domain to affect and participate in the physical world meaningfully. The concept of immersion in the Metaverse highlights this duality: as users engage with digitally enriched cultures, their interactions can translate into tangible benefits, linking the acquisition of digital tokens to non-digital access and possessions.

Conclusion

11 In our exploration of the evolving landscape from historical digital entities to the tangible hybridity of Web 3.0, we stand at a pivotal juncture where the ontological status of digital objects is being redefined. Non-Fungible Tokens (NFTs) have emerged as the vanguard of this transformation, challenging traditional philosophical constructs and inviting a re-examination of 'reality' as posited by David Chalmers in "Reality+."

12 These novel entities, born of the blockchain revolution, are not merely iterations of previous digital forms but are entities with a new kind of essence—a hybridity that affords them a distinct presence across both digital and non-digital domains. NFTs defy the dichotomy of the

1. Chalmers employs five criteria to assess the reality of digital objects, which are existence, causal powers, mind-independence, non-illusoriness, and genuineness. Regardless of whether NFTs meet the requirements to be considered "perfectly real" in terms of all these criteria, I believe that at the very least, they can be deemed entirely real with respect to the second criterion, causal power (Chalmers 2022, page 109-110, 113).

purely digital or purely physical, embodying a confluence of both, with real-world impacts and legal recognitions that reinforce their substantive existence.

13 As Chalmers asserts the reality of digital objects through five distinct criteria including causal power, NFTs epitomize these concepts, extending their influence beyond the digital sphere into the realm of tangible interactions. They are not shadowy simulacra but objects with demonstrable causal efficacy that echoes through our economic and social fabrics.

14 Thus, in response to Chalmers, while NFTs may indeed satisfy all the criteria he outlines for the reality of digital objects, their significance extends beyond virtual worlds. They not only exist within these frameworks but also challenge and expand them, heralding a new ontology of digitality—one that is interwoven with the very fabric of our physical world and societal constructs.

15 The philosophical implications of NFTs are profound and far-reaching. They serve as a testament to the malleability of 'reality' in the digital age and as a harbinger of the future trajectory of digital ontology. It is a trajectory that promises to reshape our interactions, our economies, and our very conception of what it means to be 'real' in an increasingly digitized world.

16 In conclusion, as we bridge the realities from the digital to the physical, from the past to the future, NFTs stand as a beacon of the new, complex, and hybridized forms of existence. It is an existence that challenges us to rethink and expand the philosophical boundaries of reality—a task that is not only philosophical but also deeply practical, as we navigate the contours of the emerging digital frontier.

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