

AperTO - Archivio Istituzionale Open Access dell'Università di Torino

## Digital Metempsychosis? A Critique of the Two-Worlds Model of Immersivity

### **This is the author's manuscript**

*Original Citation:*

*Availability:*

This version is available <http://hdl.handle.net/2318/2030425> since 2025-01-21T22:55:47Z

*Published version:*

DOI:10.5840/techne202387185

*Terms of use:*

Open Access

Anyone can freely access the full text of works made available as "Open Access". Works made available under a Creative Commons license can be used according to the terms and conditions of said license. Use of all other works requires consent of the right holder (author or publisher) if not exempted from copyright protection by the applicable law.

(Article begins on next page)

# Digital Metempsychosis? A Critique of the Two-Worlds Model of Immersivity

Alessandro De Cesaris

**Abstract:** The paper proposes the notion of “Two-Worlds Model” (TWM) as a theoretical framework in order to analyse some currents in the contemporary debate on technologically mediated experience. According to this model, technologically mediated experience—especially immersive experience—can be described as a form of “digital metempsychosis”—a feeling of being elsewhere. The paper argues that this model is not new in the history of philosophy, and that it is a very common theoretical and cultural strategy, often used to reduce *medial* differences—differences in the way of being or of experiencing something—as *objectual* difference. By analysing some specific topics—the most common accounts of immersive experience, the relation between immersivity and presence, and the notion of “cyberspace”—the paper aims at showing the limits of the TWM, in particular when it is used in order to describe technologically mediated experience.

**Key words:** immersivity, virtual reality, digital objects, media theory, cyberspace

## 1. Introduction

In this paper I will propose a theoretical alternative to a certain theoretical strategy, based on the assumption that there can be more than one world, or at least that it is possible to experience more than one. This claim can be more or less metaphorical, as we will see, but it always entails a certain number of consequences that I will try to analyse. Also, this strategy is not new: on the contrary, it can be identified as one of the distinctive theoretical moves in the history of Western culture. From Plato’s myth of the Hyperuranion up to contemporary sci-fi movies, our culture

has always tried to express some differences (physical/conceptual, possible/actual, image/thing, life/death) by referring to the idea of different, separated spaces.

In particular, I will analyse one specific instance of this strategy, referred to the question of immersive experience. My aim is to show that it is possible to think immersive experience without recourse to any theory of multiple spaces (or worlds), and without postulating any feeling of “dislocated presence” in the subject.

Moreover, I will try to point out the most important theoretical loss in the endorsement of a theory of multiple spaces: by postulating the existence of multiple worlds in order to explain our interaction with technology, we lose the specific nature of *medial* experience.

## 2. The “Two-Worlds Model”—A Brief Overview

I will start by giving a brief description of what I will call “Two-Worlds Model” (from now on TWM). In this paper, I will apply this model to the notion of “immersion,” but its extension is much broader than that. In general terms, the TWM is a theoretical and cultural strategy used to understand and describe all forms of mediation—and of mediated experience. More specifically, the TWM consists in describing a *medial* difference—a change in the form of mediation—as the difference between different spatial domains (“worlds”).

With the expression “medial difference” I will refer to a difference that cannot be identified by the loss or the acquisition of a “property” among others, or by the shift from one object to another. Medial difference is a change in the *same* object’s way of being, or in the way the *same* object is experienced. According to this use, “*medial*” is the opposite of “*objectual*.”

The TWM can be interpreted both from an objective (ontological) or subjective (phenomenological) standpoint. In other words, medial difference can address the object’s own constitution or our way of experiencing it. In both cases, since this kind of difference is inherently quite difficult to grasp and analyse, the TWM is the theoretical framework that transforms *medial* difference into *spatial* difference. What is *intensive* is turned into something *extensive*. In this way, the relationship between different ways of being of the same object is turned into the relationship between *different objects in different places*; a different way of experiencing the same object is turned into the experience of *something else somewhere else*.

Plato’s philosophy can be easily interpreted as the first and most powerful example of the application of the TWM.<sup>1</sup> Both his metaphysics and his theory of

experience rest upon two infamous applications of the theoretical model I'm trying to describe, the allegory of the Hyperuranion and of the Cave.

The first myth (*Phaedr.* 247 c–e) postulates the existence of a second, superior world in order to explain the difference between ideas and sensible things. Now, while the correct interpretation of Plato's doctrine is still widely discussed, Aristotle's criticism of Plato's theory of ideas as separate forms (Ross 1951, 154–64) can be interpreted as a first attempt to criticize the TWM: a different way of being of the same object is interpreted as a different object.

The second myth (*Resp.* VII, 514b–520a) aims at explaining the difference between different kinds of knowledge. It is quite clear that the allegory of the slave's imprisonment is an example of the TWM: different ways of experiencing reality become experiences of different realities in different spaces. However, the myth of the Cave is much more interesting than the allegory of the Hyperuranion.

In this tale, technology plays a pivotal role: all the kinds of experience described by Plato in the slave's ascension from the cave to the surface, before the direct contemplation of the heavens, are forms of (*technologically*) mediated experience. The proto-cinematic device at the bottom of the cave (Carbone 2019, 79–84), the images used to project shadows (514 b), as well as the water outside of the cave (516 a) are all different expressions of the medial features of experience. Plato's strategy consists in turning these features into different objects: For Plato, the Sun's reflection in the pool is not a different way of looking at the Sun, but another object, a *phantasma* of the Sun. While, of course, other passages of Plato's dialogues can be interpreted as a very deep analysis of the medial character of images (Alloa 2021, 32–49), the allegory of the Cave is a perfect example of the TWM: opinion is not a specific way of experiencing the same object, but rather the experience of a different object—in a different place.

It has been argued that the origins of Plato's allegory of the Cave are to be found in the Orphic tradition, specifically in the religious image of the descent into the world of the dead (Wright 1906). In this way, the allegory of the Cave shows its close connection to the cultural aspect of the TWM, that is not limited to theoretical speculation, but is rather a structural aspect of the Western imaginary. According to the TWM, the difference between life and death is turned into the difference between beings—the embodied self and the soul—that inhabit different realms.

An entire history of Western culture (and philosophy) could be written using the TWM as theoretical framework. Another important reference is the notion of inner space (Piazza 2013; Chrétien 2014). The understanding of conscience as

a separate space, according to the opposition between “inside” and “outside,” is a perfect example of the TWM: interiority and external reality are two different worlds, structured according to different set of rules. Again, it is interesting to remark that the emergence of this notion has been interpreted as the result of a technological revolution, and that the notion of “inner space” arises from a specific cultural change triggered by the alphabetic turn (McLuhan 1962; Ong 1972).

Finally, the metaphysics of possible worlds is another good example of the application of the TWM. Aristotle stresses that potentiality and actuality are not properties of objects in the same sense of the categories (they refer to a different meaning of “being”). This implies understanding possibility as a different way of being of the same object: since they’re not categories, “potential” or “actual” are not properties that are predicated of the object in the same way as “white” or “square” are. In a way, this is the same position expressed by Kant with the famous statement that “being is obviously not a real predicate” (Kant 1998, 567). The metaphysics of possible worlds, however, turns this *medial* and *intensive* notion into an *objectual* and *extensive* notion, presenting possibility as a separate domain of objects. As we will see, both the notion of “inner space” and the metaphysics of possible worlds play essential roles in the way technologically mediated experience has been interpreted and described in the context of digital environments.

Clearly, the TWM is closely connected to the notion of dualism. However, it is very important not to interpret the TWM as a simple form of dualism—or pluralism. The core of the TWM does not rely in the statement that there are different kinds of objects. It rather consists in the explanation of ontological and phenomenological difference by recurring to different spatial domains (or “worlds”). It’s possible to be a dualist without recourse to any form of the TWM: Cartesian dualism is a good example, since the nature of *res cogitans* is precisely to be devoid of any reference to space whatsoever. Of course, it is possible to argue that in many cases—some of which have been just presented—the TWM is not a literal description, but rather a metaphor. While—as we will see—this is not always the case, my aim is not to discuss whether the TWM describes a literal theory of multiple spatial domains or it is just a metaphor. My main interest is to provide a theoretical framework that will allow us to discuss whether this model, while incredibly successful in our cultural history, is the only—or the best—one to describe mediated experience.

### 3. The Problem of Immersivity

I have already tried to highlight that technologically mediated experience is a particularly important field for the application of the TWM. Since its beginning, media theory has focused on immersivity as one of the constitutive aspects of our relationship to all kinds of technological environments. I will call “Two Worlds Model of Immersivity” (TWMI) the theory that describes immersive experience by postulating the existence of two (or more) different dimensions (or worlds). According to this model, immersive experience is interpreted as a “migration” of the subject to a new—artificial—world. The subject is “detached” from his own reality and gains access to a new one, often with a new identity, a new body and a different sensorial balance.

The notion of “immersivity” has become particularly important with the technological development of digital media and with their capillary implementation in the public space. It has also become a central concept for the analysis of the experience of technologies such as VR (Lanier 2017). As Matthew Lombard and Theresa Ditton point out, the main feature of immersivity is the illusion of immediacy: a technologically mediated experience is immersive when the subject no longer “feels” the mediation, when she is no longer aware of it, at least when the mediation plays no significant role in the experience the subject is having (Lombard and Ditton 1997). According to the TWMI, immersivity is not limited to this, but entails some sort of artificial *metempsychosis*: thanks to the technological mediation, the subject is somewhere else or at least feels as if she were somewhere else.

It is important to remark that the history of the notion of immersive experience begins much before the beginning of what we could call “digital culture.” As Rutger J. Allan (2017) pointed out, the ancient Greek notion of *enargeia* can serve as a valid anticipation of our concept of immersion. In his *Institutio oratoria* (VI, 1–2), Quintilian describes *enargeia* as “vivid representation,” namely as the ability to show something instead of simply telling it. In this way, *enargeia* refers to a sort of spatio-temporal illusion of presence: the listener of the speech has the impression of being elsewhere, she is detached from her actual perceptual experience and she is projected in the “world” narrated by the speaker. *Enargeia* is thus related to the power of discourse, that quasi-magical feature of *logos* that is already magnified by Gorgias in his *Encomium of Helen*: according to the Greek sophist, through speeches the mind is able to experience the pain of others as if it were its own (Gorgias 1982, 25).

With the passage from the spoken to the written word, the reference to the TWMI becomes even stronger. The experience of reading has been often described by using the metaphor of a voyage to other worlds (Gerrig 1993; Ryan 2001; Bayard 2014): Alice's fall down the rabbit hole, a re-enactment of Plato's allegory of the Cave, is an allegory of the immersive character of reading in general (Ryan 2001, 50). When reading a novel, the subject experiences a degree of immersion that goes beyond the simple change of environment: she has the illusion of being *someone else somewhere* else, namely of being a different subject. Spatial change and identity shift are two closely interrelated elements.

In this way, immersive experience is identified with a kind of aesthetic illusion (Lanier 2017, 11). The subject feels as if she were someone else, and she feels as if she were in a different place (in a different 'world'). The TWMI explains immediacy by recourse to this illusory feeling. It is not by chance that many analyses of immersive experience make explicit reference to artistic realism: Oliver Grau, for instance, mentions Pompeian frescos as a pre-history of immersive virtual art (Grau 2003, 25; see also Calleja 2011, 18). In the same way, in their highly influential article on immersivity and presence, Lombard and Ditton describe immersive experience as the illusion to see something as through a "large open window" (Lombard and Ditton 1997). Here the implicit reference is to Leon Battista Alberti's treatise *De pictura*, and to the history of perspective, where Alberti describes the painting as a window that opens to a new space (Carbone 2019, 71–73).

In order to analyse the TWMI, it is not important to discuss the question whether immersion is only possible if the subject is "unaware" of the mediated character of her experience (Lombard and Ditton 1997; Mantovani and Riva 1999; Chalmers 2022, 214–17). In the same way, it is not really important to discuss the ontological engagement that goes with the model, namely the question whether the subject is "actually" traveling to another world (Ryan 2001, 103; Bayard 2014, 51–60).<sup>2</sup> An essential aspect of this model, instead, is its inherently ocularcentric structure: even though immersivity is a complex concept (Thon 2014), its main component is aesthetic, and prominently visual illusion. The subject feels an immersive experience when she feels "surrounded" by images (Pinotti 2022, XI; Chalmers 2022, 39), and these images generate a new environment. In this way, immersive experience is understood objectually and spatially: the subject is no longer experiencing the actual world, but something else, and therefore she feels as if she were in another place.

To re-establish the *medial* character of immersive experience, it is important to raise a few points, in order to propose a model that does not require any reference to a different place or to a different identity.

First, immersivity is not a contingent feature of human experience. All experience is immersive experience. Since Aristotle, Western culture knows too well that no perception and no thought are possible without mediation (Alloa 2021). We are constantly immersed in a medium, and what we call “immersive experience” is the passage from one immersive state to another, namely from one medium to another (for instance, in the simplest example, from air to water).

Second, but most importantly, this shift from one medium to another does not consist in a passage from one space to another. Immersivity does not consist in experiencing different things, but rather in experiencing things differently. Many scholars stress the importance of the “disappearance” of the medium for the success of every immersive experience. The invisibility of the medium is one of the most important aspects of media (Groys 2012), as shown by David Foster Wallace’s famous speech *This is Water* (Wallace 2009), in which two young fishes do not even know what the term “water” means. Yet, while some scholars have argued that such a process is not necessary (Mantovani and Riva 1999; Hansen 2006, 67–71), this disappearance must be interpreted precisely as a shift from an objectual to a medial attitude towards the medium: the subject does not look *at* water, but *through* (and *thanks to*) water.

Let’s apply this idea to the immersive experience of the so-called “virtual realities.” While the debate on the immersive character of reading and of other technologies has usually highlighted the metaphorical aspect of the TWM, the studies on virtual reality (and on digital technologies in general) are often based on a literal, ontologically engaged version of the TWM (a good example is Chalmers 2017 and 2022). According to this theory, virtual objects and real objects are in fact metaphysically different, and they do occupy different regions: virtual space is not a portion of the physical space, but a different dimension. As Philippe Quéau puts it, with the digital turn images become “places” (“*lieux*”), namely environments we can explore and in which we are immersed as subjects (Quéau 1993, 33–34).

On a different note, Pierre Lévy remarks how the difference between virtuality and actuality is not a difference between beings, but rather between ways of being (“*modes d’être*”) (Lévy 1998, 10). Understanding immersive experience medially means conceiving it not as the experience of a different world, but as the experience of the same world through a different medium. This change does of course imply a huge number of transformations (perceptual, psychological, opera-

tive and so on): the subject is not transported in another dimension and does not experience a new identity. She simply experiences a new modality of interaction with the environment. While reading, she does not stop relating to words: she just interacts with the written word in a different way. At the same time, while interacting with a visual interface, the subject does not stop experiencing digital images, but keeps experiencing them in a different way. As Stéphane Vial puts it, it is not a different world, but the same world that manifests itself in a different way (Vial 2013, 88–89).

#### **4. Immersion and Presence**

One of the main issues in the development of a notion of immersive experience that doesn't rely on the TWM is the relationship between immersivity and presence. Since Marvin Minsky's influential article on telepresence (Minsky 1980) the problem of presence has become one of the most debated issues in the field of philosophy of technology.

“While physical presence is mostly defined as «the existence of an object in some particular region of space and time” (Schloerb 1995, 68), telepresence is defined as the situation in which “the human operator receives sufficient information about the teleoperator [the device the operates in a remote site] and the task environment [the remote site where the device operates], displayed in a sufficiently natural way, that the operator feels physically present at the remote site.” (Sheridan 1992, 274)

According to these definitions, while physical presence is an objective feature, telepresence is a subjective condition. This distinction is not at all pacific in the debate: for instance, Luciano Floridi (2005) has proposed a completely different model of telepresence, in which there is no need to refer to any subjective status. However, I would like to remark that the close connection between immersivity and presence is based on two different elements: the first is that the human interaction with digital technologies—videogaming, VR, any relationship with digital interfaces—has been often interpreted as a form of virtual presence (namely, as Thomas B. Sheridan clarifies, a form of telepresence in a virtual instead of a physical remote environment). Secondly, many definitions of the notion of immersive experience rely on the notion of “presence.” Immersive experience is described as the sensation of “being there” (Lombard and Ditton 1997; McMahan 2003, 68; Slater 2009), of being psychologically “present” (Tamborini and Skalski 2006). This reference to presence is already featured in the aforementioned Greek notion

of *enargeia*, and is also a classic aspect of the literary theories of virtual reality (Gerrig 1993; Ryan 2001).

In order to develop an alternative to TWMI, it is very important to separate the notions of presence and of immersivity. Immersive experience does not consist in the feeling of being somewhere else, but rather in a reconfiguration of the subject's way of perceiving and interacting with the environment.

According to Lombard and Ditton (1997), the connection between immersivity and presence is confirmed by the psychological effects of the immersive environment on the subject. As an example, they refer to the tale according to which, at the beginning of the cinematic age, the crowd has "panicked and run for the exits when a black and white film of an oncoming locomotive was shown" (Lombard and Ditton 1997). (Stephen Bottomore has called this phenomenon "train effect;" see Bottomore 1999; De Cesaris 2020.) According to the authors, this inability to distinguish between "image and reference" is part of the illusory experience of immersion. The assumption that grounds this position is that immersivity is an *objectual* experience: the subject is immersed in an environment when she stops experiencing the image as image, and starts experiencing it as the real thing. However, if we reject this assumption the failure to distinguish between image and reference is precisely a failure in the mediated experience of the environment. The "train effect" is an exception: what structures our ordinary experience of cinema, on the contrary, is precisely the capability of being involved in the cinematic representation without considering the images as actually present objects (Mantovani and Riva 1999). In other words, immersive experience can absolutely be a *reflective* experience (Hansen 2006; Chalmers 2022).

## **5. There Is Nothing Spatial about Cyberspace: A Unified Model of Technological Immersivity**

The TWMI is much more than a theory concerning human-technology interaction in digital environments: it is a constitutive part of the cultural imaginaries connected to the birth and the development of digital technologies. For this reason, among others, showing the logical distinction between immersive experience and presence is not sufficient in order to overcome the TWMI. Even though the debate concerning digital technologies has evolved throughout the years, when we think about our experience in the digital environments, we are strongly influenced by a tradition of narratives and of imaginaries that describe digital media as a door leading to a different space, a virtual dimension related to our reality, but different from it. The statement that digital interfaces or virtual environments are actually

“spaces” separated from our own will always entail the need to explain how the subject can interact with these spaces. This explanation will always necessarily consist in the assumption that the subject can somehow “gain access” to another dimension through some sort of metempsychosis. In other words: the TWMI is a consequence of the TWM, and until we explain digital technologies according to the former, we will have to deal with the latter.

The imaginary of a “digital space” finds one of its key elements in the 1980s, with the notion of *cyberspace*. As it is well known, this notion was introduced by the writer William Gibson, and became popular after his masterpiece *Neuromancer*. Gibson describes cyberspace as “a consensual hallucination,” as “a graphic representation of a *nonspace*” (Gibson 2004, 51). The cyberspace does not refer to the spatial disposition of hardware in the real world, but to a digital representation of a virtual space thanks to a software. While Gibson expressly used the term as a fancy but meaningless metaphor, academic debate at first absorbed it without emphasizing this complex and somehow paradoxical relation between cyberspace and space.

It has already been pointed out that the notion of “cyberspace” is quite ambiguous, and that it raises problems rather than solving them (Cohen 2007; Huyghe 2011). The expression refers to three different technological layers: 1) the physical infrastructure (hardware) that supports applications and communication between terminals; 2) the software infrastructure that organizes the flux and the elaboration of data; 3) finally, the dimension that is accessible to every user, the interface where people actually interact with the machine and among each other (Huyghe 2011, 13–14). All these three dimensions, of course, have a spatial feature: they are (or happen) *in space*. However, it is very important not to confuse the spatial character of the physical infrastructure with the spatial aspect of the interface: David W. Schloerb, for instance, states that “the remote environment of virtual presence consists of the changing states inside a computer” (Schloerb 1995, 77). This sort of confusion leads to the idea that it is possible to speak of the spatiality of physical devices in the same way as we speak of the spatiality of virtual environments.

Interfaces do have, of course, their own spatiality: they occupy a certain portion of space. The TWM, however, is based on the assumption that these interfaces open a new space, incommensurable to the physical one. The theory of cyberspace as space is very problematic, as its creator Gibson already points out. The very nature of cyberspace is described by many as an actual implosion of space: the cyberspace is *The End of Cartographic Reason* (Farinelli 2009), where the notion

of “being there” loses its meaning (Lévy 1998, 27). In cyberspace there is no distance (Han 2017), no direction, no perspective.

I would like to argue that, while the subject has a spatial relationship *to* the medium, she has no spatial experience *in* the medium. The interaction with a machine through an interface is a very specific relationship to an object, a relationship in which the subject’s experience of space is radically altered. She does not experience a different space: she experiences space differently. She does it through different muscles, by activating different parts of her body and different faculties of her mind. In this process, however, the subject keeps being part of the same, one world.<sup>3</sup>

Some scholars have introduced some other notions in order to point out some features of immersivity that cannot be reduced to aesthetic illusion. These features are described as engagement (Lombard and Ditton 1997), passion, focus, non-diegetic immersivity (McMahan 2003, 68). These features, however, only express a change of psychological state, a particular interest of the subject for the object. By doing so, they still fail to grasp the medial nature of immersivity.

In the last decades the notion of cyberspace, while still largely used in other fields (such as cyberwar theory), has progressively faded in the discussion on immersive experience. While some philosophers still use this notion in order to address what we call “virtual reality” (Chalmers 2022, who correctly argues that this understanding of cyberspace was closer to Gibson’s own use of the term), generally speaking it is no longer at the core of the debate concerning the Internet and the nature of digital platforms.

The case seems to be different when the interface is a complex spatial representation that is expressly designed to imitate an actual space, as happens in videogames. Here the TWMI seems to be the most evident explanation for the nature of mediated experience: the subject is experiencing immersion as a form of aesthetic illusion, in which she feels as if she were *inside* the display (or the painting, or the cinema screen). According to this model, the player is living an *embodied* experience, feeling as if she were in the virtual environment she’s interacting with.

I would like to argue that there is no real reason to differentiate between the user’s interaction with digital interfaces and complex spatial representation such as VR or videogames. I’m not saying that this kind of experience never takes place: aesthetic illusion is a very specific kind of experience, and many scholars have written beautifully on its aesthetic, formal and psychological features (Calleja 2011; Grodal 2003). What I would like to highlight is that by reducing immersivity to aesthetic illusion, we lose the actual medial character of this kind

of experience. Just like the user of any other digital technology, the gamer has a spatial interaction *with* the medium, an interaction that follows its own rules: she has no spatial experience *in* the medium. She does not behave “as if” she was *in* the game; she does not migrate to another dimension. She’s here with us, but she’s living reality through a different medium, thus in a radically different way. The interface is her *water*: thanks to it, she thinks, perceives, acts differently, while perceiving the same things we do.

## 6. Conclusion

The TWM is a way to show how the theoretical issues we have with digital technology are closely linked to the most ancient and important questions of Western philosophy. In a way, philosophy is also the history of a problem—the difference between media and objects—and of a temptation—to understand mediality as a form of objectuality.

By criticizing the TWM, I’ve tried to offer an alternative to the TWMI. This alternative is necessary not only because the TWMI does not offer an accurate description of technologically mediated experience, but also because it creates more problems than it solves from the theoretical standpoint, and it has strong ethical and political implications.

From the theoretical standpoint, we have already seen that the TWM implies the conflation of notions that have to be distinguished—for instance, presence, immediacy and aesthetic illusion. Moreover, the assumption that there are different worlds will always introduce the question of how these worlds interact with each other.

From the political and ethical standpoint, the debate on the effect of digital devices on teenagers and on individuals in general—the debate on videogames and violence, the debate on the so-called “metaverse”—are strongly influenced by the TWM. Discussing these debates was not the task of this article, but the analysis of the TWM should make it possible to identify this influence in the form of implicit assumptions.

Rejecting the TWM—and the TWMI—does not entail forcing some form of monism onto reality. I’m not proposing an anti-pluralistic theory, but rather a different view of pluralism itself. There is an alternative to the TWM according to which there are no digital or virtual worlds: there is only one world, and many different ways of mediating our experience of it.

## Notes

1. Gail Fine (2010) uses the expression “Two Worlds Theory for Objects” (TWO) in order to describe Plato’s and Aristotle’s account of the difference between knowledge (*epistēmē*) and opinion (*doxa*). However, in her analysis she does not address the spatial aspect of this theoretical framework, which is instead pivotal in this paper.

2. It’s useful to remark how Ryan’s notion of “recentering” is structurally dependant from the theory of possible worlds: immersive experience takes place when the subject “recenters” his focus from the actual to a possible, virtual world.

3. From this point of view, it is possible that the post-phenomenological tradition does provide an account of technologically mediated experience that is much closer to the one proposed in this article. See for instance Joakim Vindenes and Barbara Wasson 2021, where the notion of “virtual world” is still used, but VR is still interpreted as a technology that mediates between the user and the world.

## References

- Allan, Rutger J., Irene J.F. de Jong, and Casper C. de Jonge. 2017. “From Enargeia to Immersion. The Ancient Roots of a Modern Concept.” *Style* 51(1): 34–51.
- Alloa, Emmanuel. 2021. *Looking Through Images*. New York: Columbia University Press.
- Bayard, Pierre. 2014. *Il existe d’autres mondes*. Paris: Les éditions de minuit.
- Bottomore, Stephen. 1999. “The panicking audience? Early cinema and the ‘train effect.’” *Historical Journal of Film, Radio and Television* 19(2): 177–216.
- Calleja, Gordon. 2011. *In-Game. From Immersion to Incorporation*. Cambridge, MA: MIT Press.
- Carbone, Mauro. 2019. *Philosophy-Screens*. New York: SUNY Press.
- Chalmers, David. 2017. “The Virtual and the Real.” *Disputatio* IX(46): 309–52.
- Chalmers, David. 2022. *Reality+. Virtual Worlds and The Problems of Philosophy*. Dublin: Allen Lane.
- Chrétien, Jean-Louis. 2014. *L’espace intérieur*. Paris: Les éditions de minuit.
- Cohen, Julie E. 2007. “Cyberspace as/and space.” *Georgetown Law Faculty Publications and Other Works* 107(1): 210–56.
- De Cesaris, Alessandro. 2020. “Exposition et médiation. De l’écran à la fonction écranique.” In *L’avenir des écrans*, ed. Jacopo Bodini, Mauro Carbone, Graziano Lingua, and Gemma Serrano, 81–92. Paris: Mimésis.
- Farinelli, Franco. 2009. *La fine della ragione cartografica*. Torino: Einaudi.
- Fine, Gail. 2010. “Aristotle’s Two Worlds. Knowledge and Belief in Posterior Analytics 1.33.” *Proceedings of the Aristotelian Society* 110(3pt3): 323–46.

- Floridi, Luciano. 2005. "Telepresence: From Epistemic Failure to Successful Observability." In *Computing, Philosophy and Cognition*, ed. Lorenzo Magnani and Riccardo Dossena, 4–37. London: College Pub.
- Gerrig, Richard J. 1993. *Experiencing Narrative Worlds*. New Haven: Yale University Press.
- Gibson, William. 2004. *Neuromancer*. New York: ACE Publishing.
- Gorgias. 1982. *Encomium of Helen*, trans. D. M. MacDowell. Bristol: Bristol Classical Press.
- Grau, Oliver. 2003. *Virtual Art. From Illusion to Immersion*. Boston: MIT Press.
- Grodal, Torben. 2003. "Stories for the Eye, Ear and Muscles." In *The Video Game Theory Reader*, ed. Mark J. P. Wolf and Bernard Perron, 129–56. Abingdon, UK: Routledge.
- Groys, Boris. 2012. *Under Suspicion. A Phenomenology of Media*. New York: Columbia University Press.
- Han, Byung-Chul. 2017. *In the Swarm. Digital prospects*. Boston: MIT Press.
- Hansen, Mark D. 2006. *Bodies in Code. Interfaces with Digital Media*. Abingdon, UK: Routledge.
- Huyghe, François-Bernard. 2011. "Cyberwar and its Borders." In *Cyberwar and Information Warfare*, ed. Daniel Ventre, 1–30. Hoboken: Wiley Press.
- Kant, Immanuel. 1998. *Critique of Pure Reason*, trans. Paul Guyer and Allen William Wood. Cambridge: Cambridge University Press.
- Lanier, Jaron. 2017. *Dawn of the New Everything. Encounters with Reality and Virtual Reality*. London: Verso.
- Lévy, Pierre. 1998. *Qu'est-ce que le virtuel?* Paris: La découverte.
- Lombard, Matthew, and Theresa Ditton. 1997. "At the Heart of It All: The Concept of Presence." *Journal of Computer-Mediated Communication* 3(2). <https://doi.org/10.1111/j.1083-6101.1997.tb00072.x>
- Mantovani, Fabrizia, and Giuseppe Riva. 1999. "'Real' Presence: How Different Ontologies Generate Different Criteria for Presence, Telepresence and Virtual Presence." *Presence* 8(5): 540–50.
- McLuhan, Marshall. 1962. *The Gutenberg Galaxy*. Toronto: University of Toronto Press.
- McMahan, Alison. 2003. *Immersion, Engagement and Presence. A Method for Analyzing 3-D Video Games*, *The Video Game Theory Reader*, ed. Mark J. P. Wolf and Bernard Perron, 67–86. Abingdon, UK: Routledge.
- Minsky, Marvin. 1980. "Telepresence." *Omni Magazine* 2(9): 45–51.
- Ong, Walter J. 1972. *Orality and Literacy. Technologies of the World*. Abingdon, UK: Routledge.
- Piazza, Marco. 2013. *Il fantasma dell'interiorità. Breve storia di un concetto controverso*. Milano and Udine: Mimesis.

- Pinotti, Andrea. 2022. *Alla soglia dell'immagine. Da Narciso alla realtà virtuale*. Torino: Einaudi.
- Quéau, Philippe. 1993. *Le virtuel. Vertus et vertiges*. Seyssel: Champ Vallon.
- Ross, William D. 1951. *Plato's theory of ideas*. Oxford: Oxford University Press.
- Ryan, Marie-Laure. 2001. *Narrative as Virtual Reality. Immersion and Interactivity in Literature and Electronic Media*. Baltimore: The John Hopkins University Press.
- Schloerb, David W. 1995. "A quantitative measure of telepresence." *Presence: Teleoperators and Virtual Environments* 4(1): 64–80.
- Sheridan, Thomas B. 1992. "Defining our terms." *Presence: Teleoperators and Virtual Environments* 1(2): 272–74.
- Slater, Mel. 2009. "Place illusion and plausibility can lead to realistic behaviour in immersive virtual environments." *Philos Trans R Soc Lond B Biol Sci.* 364(1535): 3549–57. <https://doi.org/10.1098/rstb.2009.0138>
- Tamborini, Ron, and Peter Skalski. 2006. *The Role of Presence in the Experience of Electronic Games*, in *Playing Video Games: Motives, Responses, and Consequences*, ed. Peter Vorderer and Jennings Bryant, 225–40. Mahwah, NJ: Lawrence Erlbaum Associates.
- Thon, Jan-Noel. 2014. "Immersion." In *The John Hopkins Guide to Digital Media*, ed. Marie-Laure Ryan, Lori Emerson, and Benjamin J. Robertson, 269–72. Baltimore: John Hopkins University Press.
- Vial, Stéphane. 2013. *L'être et l'écran. Comment le numérique change la perception*. Paris: PUF.
- Vindenes, Joakim, and Barbara Wasson. 2021. "A Postphenomenological Framework for Studying User Experience of Immersive Virtual Reality." *Frontiers in Virtual Reality* 2: 656423. <https://doi.org/10.3389/frvir.2021.656423>
- Wallace, David Foster. 2009. *This is Water*. London: Penguin Classics.
- Wright, John Henry. 1906. "The Origin of Plato's Cave." *Harvard Studies in Classical Philology* 17: 131–42.