Al-Qarawiyyin: Jurnal Ilmu Ushuluddin
p-ISSN: 3109-1946 | e-ISSN: 3109-1954
Vol. 2, No. 2, (June 2026), pages: 223-243
https://ejournal.albahriah-institut.org/index.php/al-qarawiyyin

Degree of Existence and Ontology of Virtual Reality in the Framework of Mulla Sadra's Metaphysics of *Wujūd*

Mashayla Billups*
University of South Carolina, Columbia, United States, SC 29208
Email: mash.billups@email.sc.edu

Adedoyin Adekunle
University of South Carolina, Columbia, United States, SC 29208
Email: doyin.adekunle@email.sc.edu

Mohammad Hossein Zadeh
University of Toronto, Toronto, Canada, M5R 2M8
Email: mhosseinzadeh@mail.utoronto.ca

Nafise Mostafavi
University of Toronto, Toronto, Canada, M5R 2M8
Email: na.mostafavi@mail.utoronto.ca

Article History	Submitted	Revised	Accepted	Available Online
	2026-03-01	2026-06-09	2026-06-19	2026-06-27

Abstract
The development of virtual reality, the metaverse, and immersive digital environments raises ontological questions about the existence of virtual entities that are neither entirely material nor reducible to mere mental constructions. Contemporary digital ontology approaches still tend to be trapped in the dichotomy of real-pseudo and material-symbolic, so they are unable to explain the relational and hierarchical gradation of virtual reality's existence. This study aims to reconstruct the ontological status of virtual reality through the framework of Mulla Sadra's metaphysics of *wujūd*, emphasizing the concepts of *aṣālat al-Wujūd*, *tashkīk al-Wujūd*, the ontology of *khayāl*, and *ḥarakah jawhariyyah*. This research is a literature study with a philosophical-analytical approach, grounded in ontological analysis and the conceptual reconstruction of Mulla Sadra's primary texts, as well as contemporary literature on the philosophy of technology and digital ontology. The results show that virtual reality has a real, derivative status as existence, with a weaker intensity of *wujūd* than that of external reality. From the perspective of *tashkīk al-Wujūd*, virtual reality is understood as a relational mode of existence that depends on the material substrate of technology, digital information systems, and the subject's intentionality. The ontology of *khayāl* situates virtual reality as an intermediate realm between materiality and intellectuality, while *ḥarakah jawhariyyah* describes its dynamic, continuous existential transformation. This study confirms that Sadrian metaphysics offers a conceptual alternative to contemporary digital ontology and expands Islamic philosophy's contribution to the study of modern philosophy of technology.

Keywords: *Aṣālat al-Wujūd*; *Tashkīk al-Wujūd*; Ontology of *Khayāl*; *Ḥarakah Jawhariyyah*; Virtual Reality

Corresponding author: mash.billups@email.sc.edu*

Abstrak

Perkembangan teknologi realitas virtual, metaverse, dan lingkungan digital imersif memunculkan persoalan ontologis mengenai status keberadaan entitas virtual yang tidak sepenuhnya material, tetapi juga tidak dapat direduksi menjadi konstruksi mental semata. Pendekatan ontologi digital kontemporer masih cenderung terjebak dalam dikotomi real–semu dan material–simbolik sehingga belum mampu menjelaskan gradasi eksistensi realitas virtual secara relasional dan bertingkat. Penelitian ini bertujuan merekonstruksi status ontologis realitas virtual melalui kerangka metafisika *wujūd* Mulla Sadra dengan menitikberatkan pada konsep *aṣālat al-Wujūd*, *tashkīk al-Wujūd*, ontologi *khayāl*, dan *ḥarakah jawhariyyah*. Penelitian ini merupakan studi kepustakaan dengan pendekatan filosofis-analitis melalui analisis ontologis dan rekonstruksi konseptual terhadap teks-teks primer Mulla Sadra serta literatur filsafat teknologi dan ontologi digital kontemporer. Hasil penelitian menunjukkan bahwa realitas virtual memiliki status eksistensial nyata dalam bentuk keberadaan derivatif dan intensitas *wujūd* yang lebih lemah dibanding realitas eksternal. Dalam perspektif *tashkīk al-Wujūd*, realitas virtual dipahami sebagai modus eksistensi relasional yang bergantung pada substrat material teknologi, sistem informasi digital, dan intensionalitas kesadaran subjek. Ontologi *khayāl* menjelaskan posisi realitas virtual sebagai wilayah intermediat antara materialitas dan intelektualitas, sedangkan *ḥarakah jawhariyyah* menerangkan transformasi eksistensialnya yang dinamis dan berkelanjutan. Penelitian ini menegaskan bahwa metafisika Sadrian menyediakan alternatif konseptual bagi ontologi digital kontemporer serta memperluas kontribusi filsafat Islam dalam kajian filsafat teknologi modern.

Kata Kunci: *Aṣālat al-Wujūd*; *Tashkīk al-Wujūd*; Ontologi *Khayāl*; *Ḥarakah Jawhariyyah*; Realitas Virtual

Introduction

The development of virtual reality is changing the way humans understand existence, experience, and relate to the world. Virtual reality creates an experiential space capable of producing real psychological, social, cognitive, and even moral effects (Dunivan et al., 2024). Metaphysical problems arise when virtual experiences present non-material objects that nonetheless influence human consciousness and actions, as if they were confronting actual reality. This situation gives rise to ontological debates about the existential status of virtual reality: is virtuality merely a representational illusion that relies entirely on material devices, or does it possess a specific form of existence despite its lack of physicality? Modern ontological approaches, which rely on the dichotomy of real-apparent and material-immaterial, tend to be inadequate for explaining the complexities of virtual existence because they position existence in a binary, static manner (Smirnov, 2023). This problem demands a metaphysical framework capable of explaining the gradual levels and intensities of existence.

Mulla Sadra's metaphysics of existence offers this possibility through the concepts of *asālat al-Wujūd*, which positions existence as a fundamental reality, and *tashkīk al-Wujūd*, which views existence as hierarchical in intensity (Kalin, 2010). This framework understands virtual reality as a dependent, graded mode of existence that has an actual effect on human consciousness. The relevance of the

Sadrian approach is increasingly important because virtual ontology is often trapped in materialistic and representational reductionism, which fails to explain the relationship among digital experience, non-physical existence, and the structure of human consciousness (Krebs, 2023).

Empirical evidence shows that virtual reality has become an alternative existential environment that broadly influences human practices. The International Telecommunication Union (2023) noted a significant increase in the use of virtual and augmented reality technologies in education, healthcare, the creative industry, military simulations, and professional training. The World Economic Forum (2023) positions the metaverse and immersive technologies as central to the global digital transformation, reshaping concepts of space, identity, the body, and social interaction. Statista data (2025) show that the number of global virtual reality users has exceeded 171 million, and the market value continues to grow. HTC (2022) reports the expansion of technology companies' investment in virtual ecosystems designed as alternative workspaces, social spaces, and economic spaces. The intensification of virtual space use shows that virtuality has functioned as an experiential environment shaping the structure of consciousness, identity formation, social relationship patterns, and human ethical orientation. This condition reveals the limitations of technological and psychological approaches that treat virtual reality solely as a digital instrument and fail to account for its ontological status.

Previous studies have discussed the ontology of virtual reality through various approaches but have yet to produce a metaphysical framework that systematically explains its degree of existence. Smirnov (2023) views virtuality as a representational simulation that relies entirely on physical and computational systems, thereby reducing virtual existence to an instrumental artifact with no independent ontological status. Pedro et al. (2024) found that virtual reality produces a sense of presence that approximates experience. However, the research focuses solely on the subject's experience and does not explain the ontology of the virtual object itself. Raja and Al-Baghli (2025) affirm the existence of moral responsibility in virtual interactions. However, their analysis assumes the normative existence of virtual space without explaining its ontological basis. Razzaq's (2024) research on Mulla Sadra's metaphysics emphasizes the principle of the gradation of being and the dynamics of cosmological existence, but does not connect these to contemporary digital phenomena.

Abdelgalil (2023) attempts to reconcile Islamic philosophy and modern technology, but his discussion remains symbolic-descriptive and lacks a systematic virtual ontology. Studies of virtual ontology based on Western philosophy also exhibit similar limitations. Freund (2025) positions virtuality as a simulated hyperreality that obscures actual reality, while Deleuze's approach understands the virtual as an ontological potential that has not yet been actualized (Nellhaus, 2025).

Both approaches enrich the discourse on virtuality, but fail to explain the metaphysical hierarchy of virtual existence and its relationship to human conscious experience. The absence of research that explicitly integrates the ontology of virtual reality with Mulla Sadra's metaphysics of *wujūd* indicates a substantive conceptual and methodological research gap. Previous research has not explained how virtual reality can be positioned as a dependent, hierarchical form of existence that still has an actual effect on human consciousness and action.

The research questions in this study are: how is the degree of existence of virtual reality understood through Mulla Sadra's metaphysics of *wujūd*, how is the ontological status of virtual reality placed within the hierarchy of *tashkīk al-Wujūd*, and to what extent can virtuality be understood as a non-material mode of existence that has an actual effect? The research objective is to construct a virtual ontology model grounded in the metaphysics of *wujūd* by analyzing the concepts of *asālat al-Wujūd* and *tashkīk al-Wujūd* and examining the relationship between virtual existence and human consciousness. The research's basic argument is that Mulla Sadra's principle of gradation of existence allows for the expansion of ontology to include forms of digital existence without reducing them to illusion or equating them with physical reality. Virtual reality is understood as a derivative form of existence that gains actuality through relations with consciousness, material systems, and the intensity of human experience. This approach also opens the possibility of a non-reductionist reinterpretation of classical Islamic ontology to contemporary technological problems. The theoretical contribution of the research lies in the development of a virtual ontology model grounded in the metaphysics of *wujūd*, strengthening the relevance of Mulla Sadra's thought in the discourse of modern philosophy of technology, and expanding the study of contemporary Islamic philosophy to the problem of digital existence. The practical contribution of the research includes providing a conceptual foundation for the development of digital ethics, virtual anthropology, the study of digital consciousness, and philosophical reflection on human identity in contemporary virtual space.

Method

This research uses a qualitative-philosophical method with a critical ontological approach and a conceptual-hermeneutic analysis design, oriented towards the reconstruction of Mulla Sadra's *wujūd* metaphysics in the interdisciplinary reading of contemporary virtual reality. The research is positioned within the tradition of comparative Islamic philosophy, using a graded-ontology framework to examine the relationship between the intensity of existence, digital causality, and the experience of consciousness. Primary data are in the form of Mulla Sadra's main works, especially *al-Ḥikmah al-Muta'āliyah fī al-Asfār al-'Aqliyyah al-Arba'ah and al-Mashā'ir*, which contain the concepts of *tashkīk al-Wujūd*, *al-Ḥarakah al-Jawhariyyah*, and the unity of being, while secondary data include literature on the philosophy of technology, ontology of information, virtual phenomenology, and

digital ontology studies based on Scopus articles from the last 10 years. Data collection was conducted through a systematic literature study with thematic searches, literature selection based on ontological relevance, Gadamerian hermeneutic reading, and genealogical mapping of the concepts of virtuality and existence. Data analysis was conducted through ontological category extraction, correspondence analysis based on comparative ontology and analogical reasoning, and then evaluative synthesis using an ontological matrix that connects levels of actuality, existential dependencies, affective capacities of consciousness, and digital-material causal relations to position virtual reality as a non-reductionist mode of existence.

Results and Discussion

The Principle of *Aṣālat al-Wujūd* and the Gradational Structure of Reality

The principle of *aṣālat al-Wujūd* occupies a central position in Mulla Sadra's metaphysics because it establishes the ontological priority of existence over māhiyyah through arguments that transcend the framework of Peripatetic essentialism. Sadra (1964) rejects the notion that essence has an independent reality because *māhiyyah* never exists as an objective actuality without an existence that actualizes it. This criticism is directed primarily at the Avicennian tendency that still maintains the ontological ambiguity of essence through the conceptual distinction between *wujūd* and *māhiyyah*. Sadra (1981) views existence as a primary fact that precedes intellectual abstraction, whereas essence emerges only after the intellect has conceptually delimited actual reality. This position does not eliminate the epistemic function of *māhiyyah*, but rather positions it as a secondary intelligible that helps human knowledge classify manifestations of existence. Reality acquires an existential actualization that allows something to exist as an ontological fact. This framework produces a significant methodological shift because ontology focuses on the actual structure of being as the basis for all differentiation of reality.

The immediate consequences of the principle of *wujūd* are evident in the redefinition of the relationship between the universality of concepts and the singularity of actual existence. Sadra (1981) rejects the notion that ontological classification can be explained solely by essential differentiation because essences are mere intellectual abstractions that do not correspond to the structure of external reality. The status of *i'tibārī māhiyyah* depends on the operation of the intellect that extracts universal forms based on concrete existential experience (Sadra, 1964). This argument allows Sadra to defend the epistemological validity of universals without recognizing their ontological independence. The diversity of reality arises from variations in the intensity of existence, which shape its internal differentiation. This formulation simultaneously avoids ontological relativism by maintaining the identity of entities through their respective existential actualities, rather than through separate essential substances.

The systematic articulation of this principle reaches its mature form in the concept of *tashkīk al-wujūd*, which explains how the unity of existence still permits ontological plurality without internal contradiction. Sadra (1981) differentiates between *tashkīk khāṣṣī* and *tashkīk ʻāmmī* to demonstrate that existential differentiation is not merely a categorical distinction but rather a variation in intensity within the same essence of being. The unity of existence does not produce absolute identity among entities, because each entity represents an existential actualization in accordance with its ontological capacity. This variation is continuous, not discrete, so that plurality does not fragment the unity of being into isolated substances. This gradational structure also addresses the problem of individuation, since the singularity of an entity is understood as a particular mode of intensity rather than an autonomous, independent essence. This framework has limited affinity with modern continuity ontology and process metaphysics, particularly in its rejection of atomistic ontology, which treats entities as closed units without intentional relations (Bai et al., 2021). Nevertheless, *tashkīk* remains distinct because it is rooted in existential metaphysics, which maintains an objective ontological hierarchy rather than merely a relational or phenomenological one.

The concept of *shiddah wa ḍaʻf* clarifies the internal mechanism of the gradation of existence by asserting that being possesses different levels of fullness of actuality. The intensity of existence is not understood quantitatively, but rather refers to the degree of ontological independence, the perfection of actuality, and the degree of immateriality of an entity. A more intense existence indicates a higher ontological independence because it is not fully dependent on material conditions and external determinations. A weak existence displays limitations in actualization and a greater dependence on other conditions (Sadra, 1981). This formulation explains why reality is hierarchically structured without requiring the creation of a new essence at each level of existence. The relations between levels are derivative, so that lower levels of existence still acquire their reality through intentional participation in the source of higher actuality. This structure has limited affinity to Neoplatonic emanationism, but Sadra does not view ontological derivation as a mechanical process of emanation. The intensification of existence is understood as the differential expression of a single essence of being that remains ontologically identical even as it appears at different levels of actuality.

This gradational framework has important epistemological implications because, according to Sadra (1981), knowledge is correlated with the actuality of the known object's existence. High-intensity reality has a stronger presence in the subject of knowledge, thus enabling a form of present knowledge, or *ʻilm ḥuḍūrī*, that transcends conceptual representation. Knowledge is not merely an abstract correspondence between concept and object, but an existential connection between the subject and the known reality (Sadra, 1964). This formulation explains why immaterial entities are seen as more real and more knowable in the present than

fragmented material reality. This epistemological structure does not lead to subjectivism because the intensity of existence retains an objective independence from human consciousness. Sadra's critique of atomistic ontology is relevant because the atomistic model fails to account for the continuity of epistemic relations among entities. The rejection of flat ontology is also evident, as not all entities are placed at the same ontological level. The existential hierarchy allows for epistemic differentiation without erasing the fundamental unity of reality, thereby preserving the plurality of knowledge rooted in the objective structure of being.

The classification of reality in Sadrian metaphysics is structured by the level of existence's actuality, rather than a binary opposition between being and non-being. Non-being is understood as the absence of existential intensity at a specific level. Sadra (1981) maintains a distinction between absolute non-being and weak existence, entities with minimal intensity that retain a certain ontological actuality as long as they remain within the spectrum of being. This approach allows for a more precise explanation of the change, differentiation, and transformation of reality without presuming an ontological disconnection between levels of existence. The identity of an entity is determined through the configuration of its constantly shifting existential actuality. This perspective also reveals the limitations of modern substance ontology, which tends to isolate entities as closed substances (Austin, 2020). Sadra, instead, understands reality as a network of intensities of being interconnected through tiered ontological continuity, though each level retains its specific actuality.

A further implication of this framework is evident in the relationship between the gradations of existence and the principle of *ḥarakah jawhariyyah*, which explains reality's internal dynamics. Existence is not static, as each entity undergoes substantial transformation toward a higher intensity of actuality. This dynamic is not an accidental change affecting a fixed substance, but rather the inherent movement of the structure of being itself. Sadra (1981) uses this principle to explain the continuity of cosmic change without sacrificing the ontological identity of the entity. Existential actualization proceeds through gradual intensification, so that reality is understood as a process of becoming that remains rooted in the unity of being. This framework has limited resonance with contemporary process philosophy, particularly in its rejection of frozen, static substances. The difference lies in Sadra's metaphysical foundation, which maintains an objective hierarchy of existence and a teleological orientation toward ontological perfection. This formulation demonstrates that Sadrian's metaphysics offers a philosophical model that explains the relationship between permanence and change without falling into processual relativism or rigid essentialism.

The overall structure of *aṣālat al-Wujūd*, *tashkīk al-Wujūd*, *shiddah wa ḍa'f*, and *ḥarakah jawhariyyah* constitutes an existential-ontological system that provides a strong conceptual foundation for the analysis of virtual reality. This framework

understands reality as a spectrum of graded actualities, so that virtual existence is neither reduced to absolute illusion nor equated with actual material reality. The ontological status of virtuality must be analyzed in terms of the intensity of its existence, the form of its imaginal actualization, and its ontological relationship to the subject and the technological medium. This approach opens the possibility of reinterpreting virtual reality through Sadrian's gradational ontology without falling into an overly simplistic real-virtual dichotomy. Virtual existence can be understood as a derivative mode of existence that possesses a certain degree of actuality, even though it falls short of the ontological intensity of pure material or immaterial reality.

The Ontological Status of Virtual Reality in the Spectrum of *Tashkīk al-Wujūd*

An ontological reading of virtual reality through the framework of *tashkīk al-Wujūd* requires a more rigorous definition of the intensity of existence than simply a binary classification between being and non-being. Mulla Sadra (1981) views *wujūd* as a multilevel reality distinguished by its degree of actuality, ontological independence, causal power, and proximity to the absolute source of existence. These parameters allow the ontological assessment of virtual reality to move towards evaluating its level of existence. Virtual reality cannot be reduced to non-being because it gives rise to actual interactive experiences, behavioral effects, and relational structures (Abril, Oliveira, & Gamito, 2023). However, its existence also lacks the intensity of physical *wujūd* because it is not independent. This position positions virtual reality as a derivative mode of existence that gains actuality through material, symbolic, and cognitive networks. Such a reading avoids the pitfalls of virtual ontology from two extreme reductions: complete realism and ontological nihilism. The *tashkīk* framework explains that the distinction between physical and virtual reality lies not in existence versus nonexistence, but in differing levels of existential intensity. This perspective also demonstrates that virtuality remains within the spectrum of *wujūd*, albeit occupying a lower ontological level due to its dependence on non-self-contained structures.

The derivative status of virtual reality is evident through its dependence on the material substrate and informational systems that support its actualization. Digital code, graphical algorithms, data networks, and hardware are the ontological requirements that enable the manifestation of virtuality (Smirnov, 2023). This dependence must be distinguished from mere operational dependency. Virtual entities lack an independent principle of existence, so their existence is always dependent on other, more intense *wujūd*. The concept of *wujūd bi al-Ghayr* is relevant as long as it is understood as an ontological analogy, not a literal identification with classical metaphysical categories. Virtual reality does not exist independently of material substances because it requires energy, computational systems, and information architecture to sustain itself (Dehghani et al., 2022). However, reducing virtuality to a mere hardware effect is also problematic. Luciano

Floridi (2011) explains that digital information forms a new ontological environment with actual structures and relationships. This reading reinforces the position that virtuality is not a pure illusion, but rather a form of low-intensity informational existence. This intensity is weakened by the lack of existential autonomy and the permanent dependence on a more fundamental, non-virtual substrate.

The relationship between consciousness and virtual reality requires a clear distinction between the existence of digital systems, phenomenological actualization, and the construction of subjective meaning. Virtual systems remain stored and structured even when not being experienced by the user, so their existence is not identical to perceptive experience. Phenomenological actualization emerges only when the subject enters into an intentional relationship with the virtual environment via a digital perceptual device (Pizzolante et al., 2024). Meaning, immersion, and the experience of virtual existence arise from this interaction. This distinction is crucial to prevent virtual ontology from falling into a phenomenological reduction that equates existence with the experience of consciousness. Sadrian metaphysics views the relationship between *idrāk* and *wujūd* as one of revealing levels of existence, not as the creation of absolute existence (Sadra, 1981). Virtual reality acquires experiential actuality when presented to consciousness, but its ontological system persists as a potential informational structure (Singleton & Fotopoulou, 2026). This reading aligns with the concept of *'ālam al-Khayāl*, which explains the existence of non-material forms without positing them as nothing. The virtual world resembles the ontology of *khayāl* in that it presents experientially actual objects even though they lack the status of material substance. The difference lies in the source of their actualization. Sadrian *khayāl* is rooted in the ontological power of the soul, while digital virtuality rests on technological systems and computational mediation. This relationship demonstrates that virtual existence is phenomenally derivative rather than substantial and independent.

The relational character of virtual reality demonstrates that it is formed through a network of interactions among data, algorithms, technical devices, and user consciousness. This relationality does not automatically imply ontological absence, as all levels of being in Sadra's metaphysics maintain a relationship to the source of existence (Lutfi & Riyadi, 2024). However, virtual relations differ in that their continuity depends on the technical network that maintains their actualization. Virtual objects lose their concrete manifestation when the computational relationship is severed, although their informational structure may remain preserved. This situation is better understood as a suspended manifestation rather than a total ontological collapse. Such an explanation avoids the exaggerated claim that virtuality disappears entirely when it is subjectively disconnected. A modern relational ontological perspective helps clarify this position. Evans and Ringrose

(2025) demonstrate that digital entities arise from a network of relationships among human and non-human actors. Virtual reality attains actuality not through an independent substance, but through the continuity of informational relationships. This pattern positions virtuality as an accidental-relational existence with a lower intensity than physical reality. This weakness of intensity stems from the inability to maintain existential actuality without the continuous support of an external system.

A comparison between virtual reality and physical reality reveals fundamental differences in the level of actuality, permanence, and depth of ontological causality. Physical reality exists without the need for technological actualization or symbolic mediation. Its existence is immediate and stable, and it possesses independent causal influence. In contrast, virtuality requires layers of mediation through material devices, digital codes, visual interfaces, and the user's cognitive activity. Each layer of mediation demonstrates increasing ontological distance from the primary source of actuality. This distance is not a spatial category, but rather a degree of existential dependence on other causes that sustain its continuity. This explanation differs from the assumption that all mediation necessarily weakens *wujūd*. The Sadrian tradition, in fact, positions immaterial entities as a more intense form of existence (Toussi, 2024). However, digital virtuality does not achieve purely immaterial intensity because its existence remains tied to material and symbolic structures. Its ontological position is closer to representational simulation than intellectual existence. Jean Baudrillard (1994) explains that digital simulations produce hyperreality that appears actual without possessing primary substance. This concept clarifies that virtuality functions as a derivative existential representation that reflects physical reality without being the primary reality itself. Virtuality exists as a secondary mode of existence, operationally actual but ontologically weak.

Classifying virtual reality as an *i'tibārī* entity requires a distinction between pure *i'tibārī* and *wujūd*-based *i'tibārī*. Pure *i'tibārī* refers to mental constructs without external ontological correspondence, such as conceptual categories that persist only through intellectual determination (Sadra, 1981). Virtual reality does not fully fall into this category because it has a material basis, an informational structure, and actual consequences for social behavior and human consciousness. These real effects do not automatically prove ontological substantiality, but they do indicate that virtuality possesses a certain level of actuality that transcends mere mental fiction. The most appropriate position is to understand virtuality as an *i'tibārī wujūd* based on the *haqīqī wujūd*. Virtual existence is born of symbolic projection, which rests on the subject's material existence and consciousness. This formulation is not a terminological compromise, but rather an ontological reconstruction that expands the *i'tibārī* category to the contemporary digital context. Sadra (1981) indeed distinguishes purely conceptual entities from relational forms of existence that gain actuality through other *wujūd*. Virtuality is

closer to the second category because it has an actual structure, even though it does not stand independently. This perspective allows Sadrian ontology to read digital phenomena without erasing the fundamental distinction between substantial existence and derivative existence. This reading also demonstrates the flexibility of Sadra's metaphysics in facing the ontological transformations of the information technology era.

The dialogue between Sadrian metaphysics and contemporary digital ontology demonstrates that virtual reality is not merely a technological issue but a metaphysical problem concerning new forms of information-based existence. David Chalmers (2022) views virtual objects as real entities because they possess consistent structure, causality, and experiential consequences. This perspective aligns with *tashkīk al-Wujūd*, provided reality is understood as hierarchical rather than homogeneous. However, Sadra's philosophy provides a sharper differentiation of existential intensity through the concept of gradations of actuality. Virtuality is acknowledged as existing without being equated with substantial reality. Pierre Lévy (1995) also explains that virtualization is not a negation of reality, but rather a transformation of modes of existence into potential and relational forms. Sadrian ontology enriches this idea by showing that the transformation of modes of existence remains within the unequal hierarchy of *wujūd*. This framework produces a Sadrian model of virtual ontology that positions digital reality as a lower-order informational-relational existence, phenomenologically actual but metaphysically derivative. These theoretical contributions show that Islamic philosophy does not stop at being a traditional exposition but can offer a critical reading of the problem of global virtuality.

Virtual Reality and the Ontology of *Khayāl* in Sadrian Philosophy

The concept of virtual reality raises ontological issues that cannot be adequately explained through the classical dichotomy between material reality and mental representation. Mulla Sadra's metaphysics of *wujūd* provides a more precise analytical framework by viewing existence as a multilevel reality through the principle of *tashkīk al-Wujūd* (Sadra, 1981). Virtual reality cannot be adequately understood as a digital illusion because user experiences exhibit spatial order, intersubjective relations, and real existential effects on human consciousness and behavior. This characterization positions virtuality as a derivative mode of existence that gains actuality through the subject's intentionality, digital formal structures, and material technological media. Such an ontological analysis demands a strict distinction among subjective *khayāl*, the objective *mitsāl* realm, and digital virtual simulation so that phenomenological similarities are not reduced to metaphysical ones. The Sadrian framework is crucial for rigorously and systematically determining the degree of existence within the hierarchy of *wujūd*.

The Sadrian theory of *khayāl* is rooted in the doctrine of *tajarrud al-Khayāl*, which positions the imaginative power as a level of the soul's existence that has

transcended pure materiality without achieving perfect intellectual abstraction. Sadra (1981) views *khayāl* not simply as a subjective psychological activity but as a mode of perception that has its own existential form. A fundamental distinction emerges between *muttasil khayāl* and *muntazil khayāl*. *Muttasil khayāl* refers to imaginal images that depend on the individual soul and lose actuality when consciousness is interrupted. In contrast, *muntazil khayāl* or the realm of *mitsāl* has a relative ontological subsistence that is not determined by the perception of a particular individual. The objective imaginal realm has form, relations, and internal order independent of physical material extension (Sadra, 1981). This distinction is important because not every non-material entity automatically acquires an independent ontological status. The Sadrian imaginal structure demands parameters such as *tajarrud*, existential continuity, and relative independence from the material substrate. Without these parameters, digital virtuality becomes merely a phenomenological simulation rather than an objective imaginal level within the spectrum of *wujūd*.

Virtual reality exhibits characteristics that phenomenologically resemble imaginal structures because it presents a non-physical space that retains coherence in form and spatial orientation and offers the possibility of intersubjective interaction. This similarity often leads to the premature generalization that digital virtuality is identical to the mythical realm. Such a generalization is problematic because phenomenological similarity does not automatically imply ontological equivalence. Virtual reality remains completely dependent on hardware, energy networks, algorithmic code, and the user's perceptual activity. When a computational system ceases operation, the entire virtual environment loses its existential actuality (Chiossi et al., 2022). The Sadrian *mitsāl* realm does not experience such dependence because its subsistence does not derive from a material medium. The objectivity of virtual reality is therefore derivative; that is, it is formed through the stability of the technological system and the consensus of the collective experience of users, not through the independence of *wujūd*. The concept of derivative objectivity suggests that digital virtuality has a limited actual existence, but that this status remains ontologically inferior to the objective imaginal.

The derivative nature of virtual reality does not mean that digital structures are completely ontologically empty. Virtual code comprises formal forms that enable the continuity of relationships, object identity, and experience across subjects (Guan, Chen, & Kwon, 2025). These formal forms nevertheless lack existential autonomy because their actualization depends on the material medium and the user's intentionality. Sadrian metaphysics allows for a more complex reading through the concept of *tashkīk al-Wujūd*, namely, that virtual entities retain a share of existence even though the intensity of their *wujūd* is weak and dependent (Sadra, 1981). This perspective is more adequate than reductionistic approaches that consider virtuality merely a sensory illusion. Virtual reality produces real psychological,

social, and epistemological consequences and therefore cannot be placed as non-being. This ontological dependence also distinguishes digital virtuality from the objective imaginal realm, which subsists without material support. This analysis demonstrates that the relationship between virtuality and imaginality is not identical but rather a limited analogy based on similarities in the modes of perceiving non-material forms.

The relationship between virtual technology and human imaginative structures is better understood as the technological externalization of imaginative power, rather than as the creation of a new *mitsāl* realm. The human imaginative power is intrinsically capable of forming images, symbolic spaces, and non-material relationships through the activity of the soul (Chiles, Crawford, & Elias, 2021). Digital technology extends this potential into the intersubjective realm, allowing imaginative images to take on external forms that can be experienced together. This externalization process does not change the ontological status of images from objective imaginative to objective imaginative, but rather transfers the representational function of imaginative power to a technological medium. Sadra (1981) links *khayāl* power to the existential development of the soul and the intensification of being through spiritual refinement. Virtual reality, however, operates primarily through mechanisms of technological simulation and visual consumption (Lai, 2024). This tension suggests that digital virtuality merely reproduces certain functions of imaginative power without achieving the ontological depth or spiritual transformation inherent in Sadrian's imaginative power.

The fundamental difference between the *mitsāl* realm and virtual reality is also apparent in their perceptual mechanisms. Sadrian imaginal perception involves an existential transformation of the soul, enabling the subject to access non-material forms by intensifying the level of existence. Imaginary experience does not depend on external sensory stimulation because the soul itself possesses the capacity to perceive that allows access to imaginal forms (Marks, 2016). Virtual reality operates by artificially stimulating the senses through visual, auditory, and algorithmic devices. Virtual experience does not arise from an ontological elevation of consciousness but rather from sensory manipulation that produces the illusion of spatial presence (Lai, 2024). This difference demonstrates that the similarity between digital virtuality and the imaginal realm lies only in the phenomenological appearance of non-material space. The *mitsāl* realm remains a substantive level of existence, whereas virtual reality is a technological construct that mimics certain functions of imaginal perception. This analysis avoids reducing the concept of the mythical realm to a mere non-physical space. It emphasizes that Sadrian's imagination has ontological and spiritual dimensions that go far beyond digital simulation.

An ontological reading of virtual reality through Sadrian metaphysics also opens the way for a critique of the existential orientation of modern humans. Digital

virtuality tends to produce hyperreality that obscures the hierarchy of *wujūd*, as simulations attain an experiential intensity that often surpasses ordinary material experience (Salam-Salmaoui, Hassan, & Salam, 2025). This situation can reduce *khayāl* to a mechanism for consuming images and for sensory distraction. Sadra (1981), in contrast, views imaginative power as a crucial stage in the soul's journey toward existential intensification and intuitive knowledge. When *khayāl* is reduced to technological visual simulation, the transformative function of imaginativeness is relegated to the artificial reproduction of experience. Digital virtuality does expand human representational capacity, but it must be understood as remaining at an ontologically dependent level and is vulnerable to severing the soul's orientation toward higher levels of *wujūd*. This perspective demonstrates that Sadrian philosophy provides a critical framework for evaluating the ontological and anthropological impacts of contemporary virtuality.

An ontological analysis based on the metaphysics of *wujūd* shows that virtual reality occupies a derivative mode of existence that gains actuality through the relationships among digital formal structures, material media, and the intentionality of human consciousness. This status clearly distinguishes it from both individual subjective *khayāl* and the objective realm of myths. Subjective *khayāl* depends on the individual soul; the realm of myths has a relatively independent imaginal subsistence, while digital virtuality gains stability through an artificial, technological collective system. This formulation produces a more precise ontological category than either reducing virtuality to illusion or prematurely identifying it with metaphysical imaginality. The concept of derivative objectivity and the technological externalization of *khayāl* demonstrate that virtual technology does not create a new level of *wujūd*, but rather a limited reproduction of human imaginal functions through digital media. This framework enables the development of a contemporary Islamic philosophy of technology that preserves the coherence of Sadrian metaphysics while critically and systematically explaining the transformation of human existential experience in the virtual era.

The Degree of Virtual Existence in the Dynamics of *Ḥarakah Jawhariyyah*

Mulla Sadra's (1981) substantial movement views existence as a continuous process of intensification, placing all of reality on a spectrum of graded actualities. This principle rejects the view of existence as a static state, for each entity embodies a distinct existential perfection. This framework allows for a reading of virtual reality as a derivative phenomenon that gains ontological weight through its connection to the subject's consciousness. Virtuality lacks substantial independence, as its existence depends on the soul's perceptual actualization and reflective activity (Boscaljon, 2024). This position distinguishes virtual reality from material substances or purely intelligible forms. Virtual experience is a mode of mediation that operates at the level of imaginary representation, so its ontological status is not identical to actual empirical existence. The existential intensity of

virtual experience is determined by its capacity to transform the soul's orientational structure toward a more integrated actuality, not by the complexity of the digital simulation or the depth of sensory immersion alone (Alshaer, 2025).

This conception requires a clear distinction between temporary psychological changes and substantial ontological transformations. Sadrian philosophy positions substantial movement as a change that touches the core of the soul's existence through the intensification of being, not merely affective modifications or temporary fluctuations of consciousness (Toussi, 2024). Virtual experiences only participate in this process if they produce a stable reorganization of the subject's intellectual dispositions, value orientations, and volitional structures. This mechanism can be understood through the function of *sabab iʿdādī*, a preparatory cause that opens up the possibility of actualizing the soul's potential without being an independent substantial cause (Sīnā, 1956). Virtual reality does not directly move the soul's substance, but rather provides a representational field that triggers reflective and evaluative activity. Virtual experiences that stop at momentary emotional stimulation do not produce ontological intensification because they do not establish existential continuity. Substantive transformation occurs only when the experience is assimilated into a reflective habitus that directs the soul toward higher levels of conscious integration (Glowacki et al., 2022).

The quality of existential transformation cannot be measured by the degree of sensory immersion, as ontological intensity differs from affective intensity. Highly immersive virtual environments can produce emotional shock without generating sustained existential change (Lavoie et al., 2021). The Sadrian framework links the intensification of being with an increasingly integrated unity of consciousness, so that virtual experiences acquire ontological significance only when they foster the consolidation of self-reflection (Mohammed, 2025). The concept of *ittiḥād al-ʿĀqil wa al-Maʿqūl* is a process of existential unification that expands the actuality of the soul (Sadra, 1964). Virtual experiences have the potential to accelerate this process when digital representations are internalized into a stable reflective consciousness. This situation is evident in educational simulations, trauma therapy, or empathic exercises that generate sustained changes in the subject's self-perception and ethical relations. Conversely, virtual experiences that fragment attention or disorient identity actually hinder existential integration and weaken the continuity of the soul's substantial movement (Glowacki et al., 2022).

The ontological position of virtuality becomes clearer through comparison with contemporary theories of virtuality. Pierre Lévy (1998) understands virtuality as potentiality awaiting actualization, while Gilles Deleuze (1994) posits the virtual as a dimension of reality distinct from abstract possibility. This perspective broadens the discussion of the ontological status of digital experience, but Sadrian philosophy still rejects the recognition of virtuality as an independent level of being. This rejection stems from the principle of *tashkīk al-Wujūd*, which establishes a hierarchy

of existence based on the intensity of actuality rather than its simulative capacity (Sadra, 1981). Digital virtuality lacks independent ontological continuity because its existence is always linked to consciousness and the material apparatus that supports it. Jean Baudrillard (1994) views modern simulation as blurring the boundaries between reality and representation, but the Sadrian framework maintains the ontological distinction between actual being and imaginary representation. This distinction prevents the reification of virtual experience as a new substance detached from the subject and its existential structure.

This analysis suggests that virtual reality is better understood as a modulating medium that shapes the rhythm of substantial movement, rather than as an autonomous ontological field. The soul remains at the center of existential transformation because true change occurs only through the intensification of the subject's actuality. Virtual reality functions as an accelerator or retarder depending on the quality of the accompanying reflective engagement. This perspective differs from the deterministic approach to technology, which assumes digital media has an automatically transformative power over human identity (Soh, Talaifar, & Harari, 2024). Don Ihde (1990) emphasized that technology always mediates human relations with the world, but this mediation is not identical to the formation of existential substance. The Sadrian framework accepts technology's mediative function without eliminating the primacy of the soul as the locus of movement. Virtual experiences, when integrated into a coherent existential narrative, can accelerate the formation of intellectual and ethical habits. In contrast, fragmented experiences merely produce psychic fluctuations that leave no lasting ontological impact.

Discussions on the relationship between virtuality and consciousness require attention to contemporary theories of consciousness to prevent metaphysical analysis from becoming trapped in closed abstractions. Extended mind theory holds that technological devices can expand human cognitive processes by integrating mental activity externally (Lyu & Zhou, 2025). However, the expansion of cognitive function does not automatically equate to an increase in the level of being. Sadrian philosophy measures existential perfection by the integration of the soul's actuality, not by the expansion of information capacity or the intensity of digital connectivity. Virtual experiences that enrich self-reflection, deepen ethical orientation, and strengthen the unity of will can contribute to existential evolution. Conversely, digital hyperactivity that distorts attention and erodes the stability of consciousness actually hinders the intensification of being. The findings of Drigas and Sideraki (2024) support the possibility that changes in mental habitus can result from repeated digital experiences. However, such changes only acquire ontological meaning if they result in a stable, directed continuity of consciousness, thereby transforming toward a more perfect actuality.

The overall analysis positions virtual reality as a modern imaginary phenomenon that operates through representational mediation without attaining the status of an independent substance. Virtual experiences acquire ontological meaning to the extent that they facilitate the intensification of reflective consciousness and the reorganization of the subject's existential orientation. The principle of *ḥarakah jawhariyyah* asserts that the evolution of being is always centered on the soul as the locus of continuous transformation. At the same time, digital technology merely provides mediating conditions that can accelerate or slow down this process. This approach maintains the consistency of Sadrian metaphysics while opening a productive dialogue with contemporary philosophy of technology and theories of consciousness. Digital virtuality does not create a new hierarchy of being, but rather modulates patterns of experience that influence the rhythm of human existential becoming. The ontological significance of virtual experience ultimately lies in its ability to foster a more complete integration of consciousness, strengthen self-reflection, and direct the soul toward a higher, more unified existential actuality.

Conclusion

The ontological struggle regarding virtual reality confirms that Mulla Sadra's metaphysics of *wujūd* can explain the gradation of digital existence without getting trapped in the real-apparent dichotomy through the concepts of *aṣālat al-Wujūd*, *tashkīk al-Wujūd*, the ontology of *khayāl*, and *ḥarakah jawhariyyah*. The philosophical synthesis shows that virtual reality has a legitimate intermediate existential status, not merely a subjective illusion, because the level of experience's actualization determines its existence, the consistency of symbolic structures, the capacity for meaning transformation, and the intensity of its influence on the user's consciousness and actions. This ontological relationship shows that virtual space functions as an objectified imaginative extension through technological mediums, but remains dependent on the subject and the digital system that supports it. This formulation expands the horizon of non-reductionist digital ontology while providing a practical framework for the ethics of immersive platform design, virtual identity construction, and the evaluation of metaverse experiences. Limitations are evident in the dominance of conceptual approaches, without phenomenological or neurocognitive verification, and in a single focus on the Sadrian tradition. This approach also positions virtual substantial movement as a limited, existential process of change that does not match the intensity of the *wujūd* of material entities. Still, it produces real epistemological and ethical consequences for human-technology relations. Further work should focus on comparative studies across ontologies, observations of immersive experiences, and empirical testing of perceptions of virtual existence in contemporary digital culture.

Acknowledgments

—

Author Contribution Statement

MB contributed to the conceptualization of the study, drafting the manuscript, analyzing the data, writing the first draft, providing correspondence, and finalizing the manuscript. AA was involved in data collection and verification, literature search, and reviewing the discussion material. MZ contributed to the development of the methodology, interpretation of the findings, and editing to refine the academic argument. NM played a role in validating the results, critically reviewing the manuscript, harmonizing citations and formatting, and finalizing the manuscript for publication. All authors participated in the scientific discussion, approved the final content of the manuscript, and are responsible for the integrity and accuracy of all parts of the article.

Conflict of Interest

There are no conflicts of interest of any kind related to the preparation, execution, analysis, writing, or publication of this manuscript. The authors have no financial, professional, institutional, or personal relationships that could affect the objectivity, integrity, or interpretation of the results and discussion presented in the manuscript.

AI Usage Statement

The use of artificial intelligence in this manuscript is limited to technical assistance in the form of language quality improvement, grammar correction, editing, and formatting support to enhance readability and consistency of presentation. AI was not used to generate scientific substance, formulate research questions, develop conceptual frameworks, conduct data collection and analysis, interpret findings, construct arguments, develop ideas, or draw conclusions. All results, findings, concepts, analyses, ideas, interpretations, and conclusions contained in this manuscript are the result of the author's own thoughts, academic judgment, and the sole responsibility of the author.

Bibliography

Abdelgalil, R. I. I. E. (2023). The Philosophy of Creativity, Innovation, and Technology from an Islāmic Perspective. *Journal of Islamic Thought and Civilization*, *13*(1), 218–244. https://doi.org/10.32350/jitc.131.16

Abril, T., Oliveira, J., & Gamito, P. (2023). Construction and effect of relationships with agents in a virtual reality environment. *Virtual Reality*, *27*(4), 3665–3678. https://doi.org/10.1007/s10055-022-00669-9

Alshaer, A. (2025). The role of sensory experiences in evoking emotional responses in virtual reality. *Journal of Umm Al-Qura University for Engineering and Architecture*, *16*(1), 172–184. https://doi.org/10.1007/s43995-025-00099-z

Austin, C. J. (2020). Organisms, activity, and being: on the substance of process

ontology. *European Journal for Philosophy of Science*, *10*(2), 13. https://doi.org/10.1007/s13194-020-0278-0

Bai, H., Bowering, S., Haber, J., Cohen, A., & Chang, D. (2021). From ego to eco: re-orienting for processual ontology in the "Dao-Field." *Cultural Studies of Science Education*, *16*(3), 691–705. https://doi.org/10.1007/s11422-021-10028-w

Baudrillard, J. (1994). *Simulacra and Simulation* (S. F. Glaser, ed.). Ann Arbor: University of Michigan Press.

Boscaljon, D. (2024). Myth, Religion, Imagination, and (Virtual) Realities. *Religions*, *15*(10), 1279. https://doi.org/10.3390/rel15101279

Chalmers, D. J. (2022). *Reality+: Virtual Worlds and the Problems of Philosophy*. New York: W. W. Norton & Company.

Chiles, T. H., Crawford, B., & Elias, S. R. S. T. A. (2021). Mind, Body, and Soul: A Spiritual Perspective on the Entrepreneurial Imagination. *Organization Theory*, *2*(2), 1–9. https://doi.org/10.1177/26317877211005786

Chiossi, F., Welsch, R., Villa, S., Chuang, L., & Mayer, S. (2022). Virtual Reality Adaptation Using Electrodermal Activity to Support the User Experience. *Big Data and Cognitive Computing*, *6*(2), 55. https://doi.org/10.3390/bdcc6020055

Corporation, H. (2022). *HTC Annual Report 2022*. Retrieved from https://investors.htc.com/documents/1103/HTC_2022_EN_final.pdf

Dehghani, M., Acikgoz, F., Mashatan, A., & Lee, S. H. (Mark). (2022). A holistic analysis towards understanding consumer perceptions of virtual reality devices in the post-adoption phase. *Behaviour & Information Technology*, *41*(7), 1453–1471. https://doi.org/10.1080/0144929X.2021.1876767

Deleuze, G. (1994). *Difference and Repetition* (P. Patton, ed.). New York: Columbia University Press.

Drigas, A., & Sideraki, A. (2024). Brain Neuroplasticity Leveraging Virtual Reality and Brain–Computer Interface Technologies. *Sensors*, *24*(17), 5725. https://doi.org/10.3390/s24175725

Dunivan, D. W., Mann, P., Collins, D., & Wittmer, D. P. (2024). Expanding the empirical study of virtual reality beyond empathy to compassion, moral reasoning, and moral foundations. *Frontiers in Psychology*, *15*, 1402754. https://doi.org/10.3389/fpsyg.2024.1402754

Evans, A., & Ringrose, J. (2025). More-Than-Human, More-Than-Digital: Postdigital Intimacies as a Theoretical Framework. *Social Media + Society*, *11*(1), 1–12. https://doi.org/10.1177/20563051251317779

Floridi, L. (2011). *The Philosophy of Information*. Oxford: Oxford University Press.

Forum, W. E. (2023). *Defining and Building the Metaverse*. Retrieved from https://initiatives.weforum.org/defining-and-building-the-metaverse/home

Freund, L. (2025). 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. *AI & SOCIETY*, *40*(2), 859–875. https://doi.org/10.1007/s00146-024-01900-8

Glowacki, D. R., Williams, R. R., Wonnacott, M. D., Maynard, O. M., Freire, R., Pike, J. E., & Chatziapostolou, M. (2022). Group VR experiences can produce ego attenuation and connectedness comparable to psychedelics. *Scientific Reports*, *12*(1), 8995. https://doi.org/10.1038/s41598-022-12637-z

Guan, H., Chen, P., & Kwon, C. L. (2025). Virtual Museums as Meaning-Modeling Systems in Digital Heritage. *Heritage*, *8*(11), 484. https://doi.org/10.3390/heritage8110484

Ihde, D. (1990). *Technology and the Lifeworld: From Garden to Earth*. Bloomington: Indiana University Press.

Kalin, I. (2010). *Knowledge in Later Islamic Philosophy: Mulla Sadra on Existence, Intellect, and Intuition*. Oxford: Oxford University Press.

Krebs, V. J. (2023). Digital Animism: Towards a New Materialism. *Religions*, *14*(2), 264. https://doi.org/10.3390/rel14020264

Lai, Z. (2024). Diving into the virtual realm: Exploring the mechanics of virtual reality. *Applied and Computational Engineering*, *31*(1), 268–273. https://doi.org/10.54254/2755-2721/31/20230166

Lavoie, R., Main, K., King, C., & King, D. (2021). Virtual experience, real consequences: the potential negative emotional consequences of virtual reality gameplay. *Virtual Reality*, *25*(1), 69–81. https://doi.org/10.1007/s10055-020-00440-y

Lévy, P. (1995). *Qu'est-ce que le virtuel?* Paris: La Découverte.

Lévy, P. (1998). *Becoming Virtual: Reality in the Digital Age* (R. Bononno, ed.). New York: Plenum Trade.

Lutfi, M., & Riyadi, A. K. (2024). The Concept of Divine Oneness: A Synthesis Between Sufistic Tauhid and Mulla Sadra's Philosophy of Wujud. *Jaqfi: Jurnal Aqidah Dan Filsafat Islam*, *9*(1), 1–14. https://doi.org/10.15575/jaqfi.v9i1.19065

Lyu, S., & Zhou, S. (2025). Enhancing Human Cognition: The Role of Technological Integration in Cognitive Upgrading. *The Journal of Medicine, Humanity and Media*, *3*(1), 22–36. https://doi.org/10.62787/mhm.v3i1.135

Marks, L. U. (2016). Real Images Flow: Mullā Sadrā Meets Film-Philosophy. *Film-Philosophy*, *20*(1), 24–46. https://doi.org/10.3366/film.2016.0003

Mohammed, H. H. (2025). A Dialogue on Dynamics: Mulla Sadra's Essential Movement and Presentist-Fragmentalism in Quantum Gravity. *Open Journal of Philosophy*, *15*(3), 583–598. https://doi.org/10.4236/ojpp.2025.153036

Nellhaus, T. (2025). Deleuze's concept of virtuality and critical realist ontology. *Journal of Critical Realism*, *24*(1), 2–20. https://doi.org/10.1080/14767430.2025.2460381

Pedro, A., Bao, Q. L., Hussain, R., Soltani, M., Pham, H. C., & Park, C. (2024). Learning from construction accidents in virtual reality with an ontology-enabled framework. *Automation in Construction*, *166*, 105597.

https://doi.org/10.1016/j.autcon.2024.105597

Pizzolante, M., Bartolotta, S., Sarcinella, E. D., Chirico, A., & Gaggioli, A. (2024). Virtual vs. real: exploring perceptual, cognitive and affective dimensions in design product experiences. *BMC Psychology*, *12*(1), 10. https://doi.org/10.1186/s40359-023-01497-5

Raja, U. S., & Al-Baghli, R. (2025). Ethical concerns in contemporary virtual reality and frameworks for pursuing responsible use. *Frontiers in Virtual Reality*, *6*, 1451273. https://doi.org/10.3389/frvir.2025.1451273

Razzaq, G. M. H. A. (2024). Reconsidering Self and Identity According to Mullah Sadr. *International Journal of Religion*, *5*(7), 1021–1031. https://doi.org/10.61707/sc6gfg59

Sadra, M. (1964). *al-Mashā'ir* (H. Corbin, ed.). Tehran: Kitābkhānah-yi Ṭahūrī.

Sadra, M. (1981). *al-Ḥikmah al-Muta'āliyah fī al-Asfār al-'Aqliyyah al-Arba'ah*. Beirut: Dār Iḥyā' al-Turāth al-'Arabī.

Salam-Salmaoui, R., Hassan, S., & Salam, S. (2025). Virtual Madrasas: Digital Governmentality and the Shaping of Islamic Subjectivity in Pakistan. *Journal of Media and Religion*, *24*(2), 49–71. https://doi.org/10.1080/15348423.2025.2468455

Sīnā, I. (1956). *Ash-Shifā'*. Cairo: al-Maṭba'ah al-Amīriyyah.

Singleton, O., & Fotopoulou, A. (2026). Presence Is Reality: Rethinking Virtual and Real-World Consciousness. *Perspectives on Psychological Science*, *21*(3), 269–291. https://doi.org/10.1177/17456916251414030

Smirnov, S. A. (2023). Virtual reality as a transformed form. *Philosophy Journal*, *16*(1), 21–38. https://doi.org/10.21146/2072-0726-2023-16-1-21-38

Soh, S., Talaifar, S., & Harari, G. M. (2024). Identity development in the digital context. *Social and Personality Psychology Compass*, *18*(2), 12940. https://doi.org/10.1111/spc3.12940

Statista. (2025). *Virtual Reality (VR) – Statistics & Facts*. Retrieved from https://www.statista.com/topics/2532/virtual-reality-vr/?srsltid=AfmBOoqAjlFWAhUi-MpaG6ZQjM-le_1AfgJYJDkHiu9Mp6sh34W_nGvd#topicOverview

Toussi, S. K. (2024). The Central Importance of Spiritual Psychology in Ṣadrā's Philosophy. *Journal of Shi'a Islamic Studies*, *17*(1–2), 27–45. https://doi.org/10.1353/isl.2024.a949477

Union, I. T. (2023). *Measuring Digital Development: Facts and Figures 2023*. Retrieved from https://digitallibrary.un.org/record/4074376?v=pdf