

Post-Mortem Concepts in Digital Games: A Systematic Literature Review

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Abstract. Introduction: As digital technologies increasingly mediate human relationships, new forms of memory, presence, and post-mortem interaction emerge, raising relevant sociocultural and ethical questions. Digital games provide distinctive sociotechnical environments for investigating these phenomena. **Objective:** This paper investigates how digital games support memory preservation, posthumous presence and interaction, and grief-related coping processes. **Methodology:** A systematic literature review was conducted following Kitchenham's guidelines. Searches in ACM, IEEE, and Scopus retrieved 100 studies, of which 10 were selected for further analysis. **Results:** The results show a predominance of narrative-based approaches focused on individual and single-player experiences. Post-mortem presence is mainly symbolic, with low technological automation. AI-based approaches remain incipient, and multiplayer and community-based practices are still underexplored.

Keywords: digital games, posthumous interaction, memory preservation, digital immortality, post-mortem technologies

1. Introduction

In recent decades, computational systems have come to play a central role in everyday life, mediating communication, work, entertainment, and social relationships [Yoo 2010]. As digital technologies become increasingly integrated into human experience, their social, cultural, and ethical implications also expand, particularly in relation to how individuals and communities construct meaning, identity, memory, and presence in digital environments [Alsaleh 2024, Doyle and Brubaker 2023].

Within this landscape, social networks and media platforms have played a significant role in how people record experiences, construct identities, and maintain social ties. However, recent studies have raised concerns about the growing role of automated participation, AI-generated content, and artificial interactions on online platforms, a phenomenon discussed in relation to the so-called Dead Internet Theory [Muzumdar et al. 2025]. These processes may affect how authenticity, agency, and human presence are perceived in digital exchanges.

Digital games, in turn, offer distinctive conditions for investigating technology-mediated social phenomena. Through avatars, virtual bodies, immersive environments, and interactive structures, games and game-related platforms can support forms of social presence, identification, emotional engagement, and co-presence among players and participants [Takano et al. 2025, Li et al. 2024, Kyriltsias and Michael-Grigoriou 2022].

These characteristics make digital games particularly relevant for examining how presence and memory are constructed through interactive digital media.

Moreover, digital games and virtual environments may preserve traces of players' actions, identities, and affective bonds through characters, avatars, stories, objects, memorial spaces, and community practices. Consequently, these environments can support forms of digital memory, posthumous tribute, symbolic continuity of interaction, and grief processing following a person's death or continued absence [Galvao et al. 2020].

In recent years, several studies have explored processes related to memory, digital legacy, and the technological mediation of death, especially in social media and post-mortem digital systems [Doyle and Brubaker 2023, Savin-Baden and Burden 2019]. Despite this growing body of research, the literature remains conceptually fragmented and methodologically diverse. Furthermore, comparatively few studies have investigated these phenomena within the specific context of digital games and the interaction possibilities they afford [Galvao et al. 2020].

In this context, this paper presents a systematic literature review (SLR) aimed at investigating how digital games have been used to preserve memory, enable forms of posthumous presence, and support the symbolic continuity of interaction with deceased individuals. The review seeks to identify the characteristics, main contributions, reported impacts, and participant perceptions described in the academic literature, contributing to a broader understanding of the relationships between digital games, memory, and grief. Additionally, it highlights the potential of these environments as sociotechnical spaces in which practices of memorialization and continuity of interaction may emerge and evolve.

2. Theoretical Background

This section outlines the core concepts that underpin the analysis of post-mortem interaction continuity in digital games, integrating contributions from Computer Science, Psychology, and Anthropology to provide a comprehensive foundation for this study.

2.1. Culture and Memory Preservation in Games

Digital games can be understood as repositories of collective memory [DMartins et al. 2025], as they function as tools for preserving cultural heritage, particularly its intangible dimensions [Oliveira et al. 2019], ranging from language and narratives to practices, traditions, and forms of play. A systematic mapping conducted by D'Martins et al. (2025), which analyzed 52 studies, indicates that Brazilian games contribute to preserving key cultural elements, including Indigenous languages, Brazilian Sign Language (Libras), music, festivals and celebrations, cuisine, regional myths and legends, religious practices, and historical events such as the history of *cangaço* and colonization.

In this sense, digital games contribute to the preservation of culture and collective memory in two main ways: (i) by intentionally incorporating preservation goals into game design, including gamified and immersive strategies for disseminating cultural heritage [Wang et al. 2024, Oliveira et al. 2019]; and (ii) by functioning as cultural artifacts themselves, *i.e.*, artifacts that are produced, distributed, played, and shared within specific socio-historical contexts, and whose traces, practices, and communities may themselves become objects of preservation [Barbier 2022]. This second dimension

is especially relevant because the cultural value of games is not restricted to software, hardware, or audiovisual content, but also includes player practices, community rituals, shared narratives, and other forms of participation that emerge around games over time.

Although death is a universal phenomenon, the ways in which it is interpreted, experienced, and ritualized are deeply shaped by cultural and historical contexts [Silverman et al. 2021]. Death interrupts physical presence, but it does not erase memory; instead, memory is continuously reconstructed through individual, collective, and social processes of meaning-making [Oriane and Eustache 2023]. Given that death, grief, and their associated rituals are socially and culturally mediated [Tateo 2023], it is reasonable to consider that digital games, as sociotechnical and cultural artifacts, also incorporate, preserve, and reinterpret these meanings and practices [Galvao et al. 2020]. As a result, new concepts emerge within this domain, such as digital immortality and posthumous interaction. Thus, digital games can be understood as sociotechnical spaces in which memory, presence, and mourning practices are continuously negotiated and reconfigured within contemporary digital culture.

2.2. Posthumous Interaction and Digital Immortality

Within research on death, grief, and technology, the concept of *posthumous interaction* refers to forms of interaction between living individuals and deceased persons mediated by data, digital systems, and other technological artifacts. This concept was introduced by Maciel and Pereira (2012; 2013), based on practices observed in social media and digital systems in which profiles, records, and content persist after death, enabling ongoing symbolic connections between the living and the deceased. Although this concept has been explored in Computing, particularly in the context of social media, studies investigating how posthumous interaction manifests in digital games remain limited. This gap is particularly relevant because games present unique characteristics, such as interactivity, agency, community practices, and persistent virtual environments, which may significantly expand the possibilities for posthumous interaction [Barbier 2022, Galvao et al. 2020].

The concept of *digital immortality*, closely related to that of *post-mortem presence*, refers to the continuation of a person's presence in the digital world after death [Galvão et al. 2021, Galvão et al. 2017, Savin-Baden et al. 2017]. This may range from simple memorialized profiles to more sophisticated representations, such as avatars, virtual humans, and chatbots that actively simulate or represent deceased individuals [Savin-Baden and Burden 2019]. The topic raises sensitive issues related to ethics, privacy, consent, and the grieving process. In the context of digital games, digital immortality acquires distinct contours, particularly with advances in technologies such as artificial intelligence and persistent virtual environments. In such scenarios, maintaining avatars and digital identities after death becomes technically feasible. However, its implementation raises complex challenges that require further investigation, including the limits of post-mortem consent, control over digital representations, and the psychological and social impacts associated with the continued presence of the deceased in virtual environments.

Considering these aspects, this study conducts a SLR to investigate how posthumous interaction, digital immortality, and related concepts of post-mortem

interaction continuity have been addressed in the context of digital games. The research methodology is described in the following section.

3. Methodology

This Systematic Literature Review (SLR) investigates how digital games and related technologies have been employed to support memory preservation, enable posthumous interaction and presence, and assist players in coping with grief in post-mortem contexts. The review protocol was defined *a priori* using the Parsifal tool, following Kitchenham's guidelines [Kitchenham 2007]. Based on this protocol, four research questions (RQs) were formulated to guide the review:

- **RQ01.** *What are the characteristics of the investigated games and study participants?*
- **RQ02.** *What are the main contributions of the studies to the topic of games, death, and posthumous interaction?*
- **RQ03.** *What are the main impacts reported in the literature regarding posthumous interaction and presence in digital games?*

The search strategy was structured according to the PICOC framework. The Comparison component was intentionally omitted because the exploratory nature of this review did not require a comparative analysis. The resulting PICOC structure comprised: **Population:** players, their families, gaming communities, and users of digital platforms; **Intervention:** game-mediated interaction elements and features, such as characters, avatars, downloadable content (DLC), and modifications (mods); **Outcome:** memory preservation, continuity of interaction, posthumous interaction, digital immortality, digital legacy, grief, and post-mortem presence; and **Context:** video games, digital games, and related technologies.

The selected databases were ACM Digital Library, IEEE Xplore, and Scopus. SBC OpenLib (SOL) was initially considered but was subsequently excluded because its search interface did not support the execution of the proposed search string due to its complexity. The final search string was:

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("game communit*" OR "familia*" OR "famill*" OR "jogador*" OR "gamer*" OR
"player*" OR "platform user*") AND ("interação" OR "interaction" OR
"personage*" OR "char*" OR "avatar*" OR "dlc" OR "mod" OR "memoria*" OR
"homenagem" OR "presença" OR "presence") AND ("pós-morte" OR "pós morte"
OR "post mortem" OR "posthumous" OR "postum*" OR "imortalidade" OR
"immortality" OR "legado digital" OR "digital heritage" OR "digital
legacy" OR "luto" OR "grief" OR "griev*" OR "mourning" OR "tombstone" OR
"tribute" OR "memory archive" OR "memory preservation" OR "preservation
of memory" OR "além-túmulo" OR "postum*" OR "posthumous") AND
("videogame*" OR "jogo digital" OR "jogos digitais" OR "game" OR "digital
game*" OR "game platform*" OR "plataformas de jogos")
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The search retrieved 19 studies from ACM Digital Library, 23 from IEEE Xplore, and 58 from Scopus, yielding a total of 100 records. After duplicate removal, 89 unique studies remained. Study selection was then performed through title and abstract screening using predefined inclusion criteria (IC) and exclusion criteria (EC), described below.

- **IC01.** Studies explicitly addressing the relationship between digital games and practices related to death or post-mortem contexts;
- **IC02.** Studies published between 2010 and 2025;

- **IC03.** Studies available in full text in the selected databases;
- **IC04.** Studies published in English or Portuguese.
- **EC01.** Studies addressing death-related technologies outside the context of digital games or game-related technologies;
- **EC02.** Studies consisting solely of abstracts, preliminary versions, or non-peer-reviewed materials;
- **EC03.** Studies published before 2010.

After applying these criteria, ten studies were selected for full-text reading and qualitative analysis in this SLR: [Patil 2025, LeFevre and Chung 2024, Galvão et al. 2024, Verhalen and Rodrigues 2024, Verhalen et al. 2021, Galvão et al. 2020, Roth et al. 2019, Ataguba 2018, Ferri et al. 2017, Moffat and Shapiro 2015]. Although a previous literature review by Carmo and Ribeiro (2026) analyzed the same set of primary studies, its objective was to investigate the forms of memory preservation and post-mortem interaction continuity from a Human-Computer Interaction (HCI) perspective. The present review adopts a different analytical lens. Instead of examining interaction mechanisms, it investigates the characteristics of the investigated games and participants, the contributions of the studies, and the reported impacts of post-mortem concepts in digital games. Consequently, both reviews are complementary, offering distinct but convergent perspectives on the same body of literature.

In accordance with CNPq (Portaria CNPq nº 2.664 of March 6, 2026), Generative Artificial Intelligence (GenAI) tools were employed only in a limited and supportive capacity during the development of this study. Specifically, ChatGPT was used to assist in writing and refining the manuscript in English, while ChatPDF supported the preliminary extraction of information from the primary studies included in the review.

4. Results

4.1. Characteristics of Games and Study Participants

The first research question, “*What are the characteristics of the investigated games and study participants?*”, aimed to identify both the types of games examined and the profiles of participants involved in empirical studies. Across the analyzed studies, the following games and platforms were investigated: GRIS, 5Days, Jungle Party, Progetto Ustica, a Holocaust-related serious game, Skyrim VR, Resident Evil 7, VRChat, MemoApp, RUFUS, and the speculative Healing Agent system.

A predominance of single-player or single-user experiences can be observed, particularly in studies centered on GRIS, 5Days, Jungle Party, Progetto Ustica, and the Holocaust-related serious game [LeFevre and Chung 2024, Ferri et al. 2017, Verhalen et al. 2021, Moffat and Shapiro 2015, Roth et al. 2019]. Other studies focused on design frameworks, authoring platforms, memory-recording applications, or AI-mediated companion technologies rather than on a single playable game, including CERCO, RUFUS, MemoApp, and Healing Agent [Verhalen and Rodrigues 2024, Patil 2025, Galvão et al. 2024, Ataguba 2018]. In addition, one study explored representations of death across multiple 3D and virtual reality (VR) game environments, including Skyrim VR, Resident Evil 7, and VRChat, while also discussing social games

and massively multiplayer online games (MMOs) as contexts in which memorial and posthumous practices may emerge [Galvao et al. 2020].

None of the selected studies investigated persistent virtual worlds or games specifically designed as digital memorials as their primary empirical object. However, social and multiplayer environments appeared tangentially in discussions of virtual funerals, memorial spaces, and in-game tributes [Galvao et al. 2020]. Overall, these findings suggest that the literature has primarily focused on individual experiences and studies centered on specific games or prototypes, whereas social contexts and community-based practices in multiplayer environments remain underexplored.

Regarding study participants, four studies reported formal empirical samples, totaling 90 participants: 11 bereaved individuals in the GRIS study [LeFevre and Chung 2024], 20 participants in the RUFUS usability evaluation involving specialists from Design, Computing, and Health [Verhalen and Rodrigues 2024], 37 volunteers in the study on death representations in virtual game environments [Galvao et al. 2020], and 22 bereaved participants in the MemoApp study [Ataguba 2018]. In addition, Jungle Party was evaluated by specialists, including a psychologist, an HCI researcher, and a narrative design specialist [Verhalen et al. 2021], while 5Days reports playtesting sessions and formative feedback from palliative care specialists without specifying a formal sample size [Roth et al. 2019].

Across all studies reporting participant characteristics, participants were adults, indicating a predominance of individuals with the emotional and cognitive maturity required to engage with sensitive topics such as death and grief. Notably, only one study involved bereaved participants in a gameplay-based diary study, in which participants played GRIS while reflecting on their own bereavement experiences [LeFevre and Chung 2024]. By contrast, the remaining empirical studies primarily involved professionals or specialists from Design, Computing, and Health [Verhalen and Rodrigues 2024, Verhalen et al. 2021, Roth et al. 2019], bereaved individuals using memory-recording technologies [Ataguba 2018], or volunteers reflecting on representations of death in 3D and VR game environments [Galvao et al. 2020].

Overall, this distribution highlights an important gap: the limited representation of players, gaming communities, family members, and bereaved communities in studies of posthumous presence and post-mortem interaction in games. Considering that digital games are inherently sociotechnical environments shaped by interaction, participation, and community practices, this limitation restricts the understanding of real interaction dynamics, particularly those related to posthumous presence. Therefore, future research should incorporate more diverse participant profiles—including players, online communities, bereaved individuals, and family members—to broaden the understanding of how these experiences are lived, appropriated, and re-signified in real-world contexts.

4.2. Games, Death, and Posthumous Interaction

The second research question, “*What are the main contributions of the studies to the topic of games, death, and posthumous interaction?*”, aimed to provide a broader understanding of the contributions reported in the literature. The results reveal diverse approaches, including conceptual frameworks, game design and analysis, empirical studies, and

design fiction proposals. Overall, the analyzed studies examine how digital games and related technologies support grieving processes, foster reflection on death, preserve individual and collective memories, and enable new forms of digital presence after death.

Research in this area often begins by exploring how games support reflection on grief. LeFevre and Chung (2024), for example, investigate *GRIS* as a reflective technology for bereavement meaning-making, drawing on constructivist grief theory and Innovative Moments to examine how players connect game experiences to their own bereavement narratives [LeFevre and Chung 2024]. Within this approach, continuity is grounded not in technical identity persistence but in symbolic narrative structures that foster reflection, meaning-making, and the preservation of emotions associated with grief.

This therapeutic perspective is expanded in studies focusing on games designed to address grief, particularly in sensitive contexts involving children. These works highlight narrative mechanics, storytelling strategies, and integration with therapeutic platforms, reinforcing the role of games as mediators of dialogue about death [Verhalen and Rodrigues 2024, Verhalen et al. 2021]. In such cases, interaction records, narrative structures, and authoring infrastructures enable healthcare professionals to design, adapt, and revisit playful experiences while maintaining narrative as the primary mechanism of symbolic continuity.

The use of immersive technologies, such as virtual reality, further reinforces the role of games in promoting emotional and educational experiences related to grief. Although not yet validated at scale, environments structured around the stages of grief suggest potential for reflection, death education, and future therapeutic applications [Roth et al. 2019]. In parallel, studies of three-dimensional virtual environments broaden this perspective by incorporating memorial spaces, community rituals, preserved objects, in-game tributes, and NPCs or avatars associated with deceased individuals [Galvao et al. 2020].

Continuity is also extended through emerging and related technologies. AI-based approaches enable interactive simulations of deceased individuals, creating forms of active digital presence, although these remain largely speculative and situated in game-adjacent contexts [Patil 2025]. Similarly, life-logging technologies support memory preservation through external archives, multimedia narratives, and persistent records, enabling the ongoing reinterpretation of memories and emotional bonds [Ataguba 2018].

Beyond individual experiences, games also contribute to collective memory and civic engagement. Civically engaged and serious games demonstrate how gameplay, digital archives, testimonies, material artifacts, and narrative fragments can mediate discussions about traumatic historical events while preserving cultural memory across generations [Ferri et al. 2017, Moffat and Shapiro 2015].

These approaches are complemented by frameworks such as CERCO, which emphasize empathic game design for sensitive topics, including grief, death, and mental health. Rather than focusing on technical identity persistence, such frameworks foreground narrative, audiovisual, and gameplay elements as resources for fostering empathy and reflection [Galvão et al. 2024]. Overall, preservation is predominantly narrative-based, often complemented by persistent records, memorial artifacts, and social practices.

However, within game-centered empirical studies, the category of "active avatar/preserved profile" remains notably underrepresented, appearing only indirectly in broader discussions of virtual environments and memorial practices [Galvao et al. 2020]. The clearest example of an active simulated presence is found in a speculative AI-based system rather than in a digital game itself [Patil 2025]. This highlights an important gap in the literature regarding identity persistence in games, despite its growing technical feasibility.

In summary, continuity in digital games is predominantly constructed through symbolic and narrative structures, with limited technological automation. AI-based approaches remain incipient, exploratory, and largely confined to adjacent post-mortem technologies rather than fully developed game-based systems.

4.3. Impacts of Post-Mortem Concepts in Games

The final research question, *"What are the main impacts reported in the literature regarding posthumous interaction and presence in digital games?"*, aimed to identify the main types of impacts discussed in the literature. To address this question, the impacts extracted from the studies were categorized into cognitive, cultural, emotional, existential, social, and therapeutic dimensions.

According to our coding, emotional impacts were the most frequently identified (8 of 10), followed by cognitive, social, and therapeutic impacts (4 of 10 each), as illustrated in Figure 1. In addition, the reported impacts were analyzed according to their valence: positive, negative, or neutral. As shown in Figure 1, positive impacts predominated (9 of 10), although several studies also mention limitations, risks, or gaps in empirical validation.

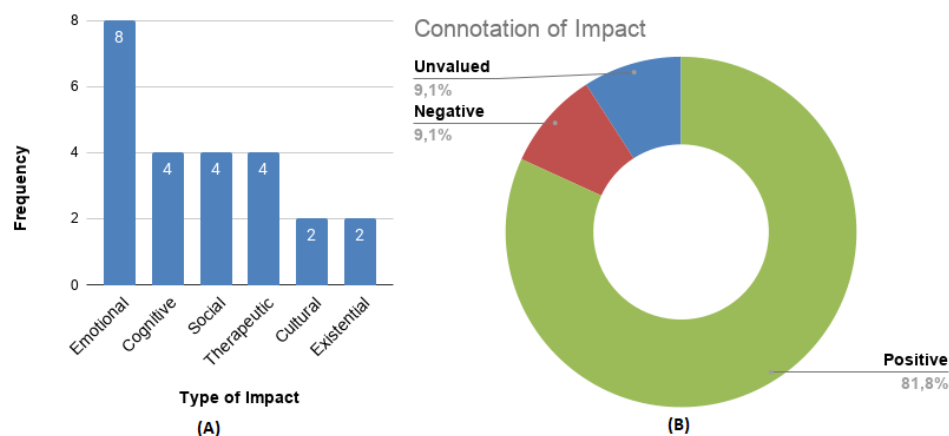


Figure 1. Types of Impacts of Post-Mortem Concepts

Regarding emotional and therapeutic dimensions, studies such as LeFevre and Chung (2024), Verhalen and Rodrigues (2023), and Verhalen et al. (2021) suggest that digital games can support reflection on grief, emotional expression, and dialogue about death. In LeFevre and Chung (2024), for example, participants' experiences with GRIS were associated with bereavement meaning-making, reflection, and connections between gameplay and personal loss narratives. Similarly, Verhalen and Rodrigues (2023) and Verhalen et al. (2021) describe therapeutic game design approaches for childhood

contexts, in which playful and narrative experiences are intended to mediate conversations about death and support professional interventions. In these cases, the impacts are predominantly positive or potentially positive, although further empirical validation with target users remains necessary.

In terms of emotional impacts, Roth et al. (2019) suggests that immersive experiences may stimulate emotional processing and reflection on grief, although these effects were not scientifically validated at scale. In Moffat and Shapiro (2015), emotional impact is associated with the careful presentation of sensitive historical content, aiming to promote empathy, authenticity, and appreciation of resilience while avoiding unnecessary distress.

From a social perspective, impacts are primarily related to cohesion, ritualization, and forms of interaction mediated by digital technologies. Ferri et al. (2017) shows that games can function as tools for civic engagement and collective memory preservation, strengthening cultural remembrance and public discussion around historical events. Complementarily, Ataguba (2018) indicates that memory-recording technologies can foster social reconnection and strengthen emotional bonds by enabling bereaved individuals to revisit, archive, and share memories.

A particularly comprehensive contribution is presented in Galvão et al. (2020), which identifies a wide range of impacts, with strong emphasis on the social dimension. In this study, games and virtual environments are described as spaces for social gathering, where grief-related rituals such as virtual funerals, tributes, and digital memorials may take place. These practices can promote social cohesion by bringing individuals together around the memory of deceased persons and enabling collective expressions of grief. The study also suggests that such interactions may encourage more open discussions about death, strengthen solidarity among participants, and facilitate emotional expression. Thus, social impacts are broad and interconnected with emotional, cultural, and existential dimensions, highlighting the potential of these environments as mediators of collective experiences related to death.

Cultural impacts are particularly evident in studies such as Ferri et al. (2017) and Galvão et al. (2020). In Ferri et al. (2017), games are used as tools for transmitting historical memory and preserving civic and cultural narratives. In Galvão et al. (2020), online games and virtual environments acquire meanings that extend beyond entertainment, functioning as spaces for memorialization practices and rituals.

Cognitive impacts are also addressed in studies such as LeFevre and Chung (2024), Patil (2025), Roth et al. (2019), Galvão et al. (2020), and Ataguba (2018). These impacts are mainly related to reflection on death, meaning-making, remembrance, and identity reconstruction. In Patil (2025), for instance, avatars and digital memories are associated with the possibility of maintaining symbolic or communicative bonds with the deceased, although in a speculative and game-adjacent context. In Ataguba (2018), life-logging technologies support remembrance and continuing bonds by allowing memories to be captured, revisited, archived, and shared.

Problematic or negative impacts are less frequently reported, but they remain relevant. Patil (2025) explicitly discusses risks such as emotional dependency, avoidance, social withdrawal, consent issues, misleading simulations, false sense of presence, and

interference with grief processing. Additionally, LeFevre and Chung (2024) identify limitations related to abstract or linear representations of grief, which may prevent some users from connecting gameplay to their own bereavement experiences. These findings suggest that, although positive impacts predominate in the analyzed literature, caution is required in the design and use of post-mortem technologies.

Finally, it is worth noting that not all studies explicitly address impacts. For example, Galvão et al. (2023) does not provide a direct analysis of emotional, social, or therapeutic effects, focusing instead on the proposal of a framework for empathic game design. Moreover, in some cases, such as Roth et al. (2019), impacts are presented as potential or not yet empirically validated, highlighting existing gaps in the literature. Taken together, these findings suggest that the impacts of post-mortem concepts in digital games extend beyond individual grief experiences, encompassing broader cognitive, social, cultural, and existential processes. This reinforces the view of digital games as sociotechnical spaces in which memory, mourning, and posthumous presence are collectively negotiated and re-signified.

5. Conclusion

This SLR advances the understanding of how digital games and related technologies support memory preservation, posthumous interaction, and coping with grief. The findings indicate that digital games are emerging as sociotechnical spaces where memory, presence, and interaction are reconfigured beyond death, predominantly through symbolic and narrative mechanisms. Across the analyzed studies, post-mortem continuity is mainly grounded in memorial narratives and persistent records rather than advanced identity simulation. This reinforces the view that memory is continuously reconstructed through cultural and social processes [Silverman et al. 2021]. In this context, digital games function not only as technological artifacts but also as cultural mediators that enable individuals to reinterpret grief and maintain symbolic bonds with the deceased.

The predominance of emotional and therapeutic impacts highlights the potential of games to support meaning-making and emotional processing. However, this potential is primarily explored through individual and single-player experiences, contrasting with the inherently social nature of both games and mourning practices. This reveals a gap in the exploration of collective and community-based dimensions of posthumous interaction. Additionally, the technical exploration of digital immortality remains limited. Although feasible with advances in artificial intelligence, current approaches are still incipient, often speculative, and accompanied by ethical concerns related to consent, authenticity, and psychological implications [Savin-Baden et al. 2017].

In summary, digital games show significant potential for memory preservation and symbolic continuity of interaction. Advancing this field requires moving beyond narrative-centered approaches toward integrated perspectives that consider technical, social, cultural, and ethical dimensions. Future research should focus on community-based practices, persistent virtual environments, and responsible design strategies that address the complexities of posthumous presence in digital games.

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