Between Memory and Ethics: Real Human-Educators Transformed into Virtual Human-Educators

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***Abstract*—This article examines the ethical dilemmas that arise from the transformation of real human-educators into virtual human-educators using artificial intelligence, particularly in posthumous contexts. Based on the project "Dados Além da Vida" (DAVI – Data Beyond Life), it investigates the boundaries between memory and technology in the recreation of deceased educators using generative models. The study explores how digital traces, such as voice, scholarly productions, and images, are mobilized to simulate presence and interaction, raising tensions between memory and ethics. Considering the current capabilities of Artificial Intelligence, the article discusses whether it is ethically acceptable to convert the memory of real human-educators into virtual human-educators, and what implications this entails.**

I. Introduction

Artificial Intelligence (AI) technologies, especially generative models such as Large Language Models (LLMs), have been progressively incorporated into social practices related to memory (Magnolo and Henriques, 2023).

A study on "memór.IA" by Magnolo and Henriques (2023) explores how memory can be associated with AI. The term "memór.IA" is a wordplay in Portuguese, where "memória" means memory, and the capital letters "IA" (the Portuguese acronym for Artificial Intelligence) create a conceptual bridge between the fields of memory and artificial intelligence. This study highlights the possibilities of reconstructing the past through Artificial Intelligence. Castro and Maciel (2025) also conducted research on these uses of memory with AI, but focused exclusively on the posthumous digital legacy of real human educators who revisit the past in the form of virtual human educators and may even interact with students. While Magnolo and Henriques (2023) use the term "Memory" in a general sense, Castro and Maciel (2025), with a specific focus on education, refer to it as educational immortality.

The capture of voice, behaviors, personalities, authored content, and even the didactic style of deceased human educators can feed AI models capable of generating realistic simulations of their presence, in the form of avatars, as a kind of educational immortality. According to Santaella and Kaufman (2024, p. 39), generative AI "produces original content from large datasets, that is, it uses data to generate more data, synthesizing text, image, voice, video, and code". It is precisely this type of generative technology that has enabled the simulation of public figures, a recurring practice that, when applied to the recreation of deceased educators in teaching environments, requires deeper ethical analysis (Castro and Maciel, 2025).

According to Rubens Montanha et al. (2023), Virtual Humans were first developed more than 50 years ago and, today, technologies have already reached a level where they can replicate the authentic characteristics and behaviors of real actors, resulting in Virtual Humans that are visually convincing and behaviorally lifelike. In this sense, when associated with this concept, educational immortality is achieved through an avatar, which are digital characters in the form of anthropomorphic representations of educational personalities created in computational environments, with body and face graphically modeled, animated to demonstrate physical and expressive behaviors, including speech, gestures, and emotions, and endowed with the ability to interact, perceive, or respond to the user or the environment. Much of their realism depends not only on visual appearance but also on expressive and interactive behavior.

This scenario brings with it tension. While a virtual human educator may be perceived as a tribute, it also opens the door to the instrumentalization of teaching figures. Memory, when translated into code, ceases to be a gesture of respect and may become a pedagogical resource shaped by external interests. This ambivalence carries ethical dilemmas that cannot be ignored.

Another point concerns the sociopolitical implications of this virtualization. AI technologies do not emerge in a political vacuum, but within power relations that determine which bodies and voices will have a place in digital space. The selection of who will or will not be immortalized through avatars bears the marks of historical exclusion and may reinforce structural inequalities, reproducing absences that are already present in the educational field.

Educational immortality is connected to a broader movement of automation in teaching. The promise of tireless and efficient virtual teachers raises concerns about the reduction of teaching to predictable flows of responses, detached from the sensitive and historical dimension of educational practice. This tension between algorithmic efficiency and the human complexity of education constitutes one of the most urgent

debates to be addressed.

Recent research in Computer Science has emphasized the role of avatars as mediators of presence and self-expression in virtual environments. The work of Ribeiro et al. (2024), by proposing the VISHnu approach, places this at the forefront. Although the focus of the VISHnu approach is to support user self-expression through avatar customization, its results are also relevant for considering the recreation of third parties, such as deceased educators. The formalization of contextual, cultural, social, psychological, and physiological dimensions shows that building an avatar is never neutral. It always involves choices about which aspects of identity will be represented or omitted. This reflection is important for educational immortality, since the recreation of teachers cannot be reduced to technical design decisions, but must take into account how the teaching memory is translated into an avatar and what ethical implications arise from these choices.

Musse et al. (2024), in presenting the Virtual Human Lab (VHLAB), emphasize that their research on virtual humans is not limited to entertainment or crowd simulation, but also extends to areas such as health, safety, and, especially, education. The development of embodied conversational agents and techniques for animating the faces and bodies of Virtual Humans paves the way for pedagogical applications in immersive environments, where interaction with virtual characters can support teaching and learning processes. This interface with education directly connects the studies of VHLab to the discussion on educational immortality, since the recreation of teachers in the form of digital humans relies on the same technologies of simulation, perception, and interaction. In this context, the laboratory's contributions help to understand not only the technical advances required but also the ethical challenges of transposing teaching experiences into computational avatars that interact with students.

In this article, we propose a reflection on the reconfiguration of teaching memory in times of algorithmic virtualization. We take as a starting point the project Dados Além da Vida (DAVI – Data Beyond Life), linked to the Federal University of Mato Grosso, which investigates death and technologies and has recently been developing research on the impacts of posthumous digital legacy and the ethical implications of recreating human presences through artificial intelligence (Castro and Maciel, 2025). By addressing technologies that intersect mourning, memory, and the symbolic replacement of human presences, DAVI contributes to broadening the debate on the ethical contours of educational immortality in the age of AI.

The discussions presented here are dialogue with different fields of knowledge. In Education, Freire (2013) offers a fundamental critique of banking education, which becomes even more relevant in the face of increasing automation of teaching. Zuboff (2023), in turn, contributes to the understanding of surveillance capitalism, situating AI within relations of power and exclusion that go beyond the technical dimension. By also incorporating Galvão et al. (2021) on digital immortality and Faustino and Lippold (2023) on digital colonialism, this study articulates perspectives that cross ethics, politics, and memory, allowing the recreation of virtual human educators to be understood as a complex and multifaceted phenomenon. The choice of this set of authors is justified by the need to combine theoretical contributions from critical education, the ethics of technology, and decolonial epistemologies, to illuminate tensions that remain invisible in merely technical analyses.

Methodologically, this work adopts a qualitative approach, based on a critical bibliographic review. National and international studies published between 2013 and 2025 dealing with memory, artificial intelligence, education, and ethics were selected. The choice of bibliographic review, instead of empirical research, stems from the scarcity of works that directly address educational immortality, identified by Verhalen, Moraes, and Maciel (2025) as a relevant gap. Thus, this article seeks not only to map and discuss existing theoretical references, but also to propose new conceptual articulations that contribute to advancing the debate on the recreation of educators through AI in posthumous contexts. The use of the DAVI project as a central axis derives from its consolidated experience in discussing death and technologies, providing a privileged field to reflect on memory, ethics, and digital presence in education.

A. Memory: between tribute to the real human-educator and instrumentation of the virtual human-educator

As Galvão et al. (2021) warn, digital immortality presents ethical dilemmas that go beyond technical innovation. On the one hand, recreating a human educator may seem like a tribute; on the other, it risks instrumentalizing the teaching figure to serve educational purposes detached from their personal will or ethics. The absence of prior consent for posthumous simulation makes this practice even more problematic, as it transforms memory into an object of use rather than an act of respect. The DAVI project advocates that virtualization should be preceded by ethical study and regulatory frameworks.

From this perspective, the risk is not only the appropriation of the image but also the selective manipulation of the teaching legacy. What is preserved in an avatar does not correspond to the totality of the human educator, but to a version filtered by technical or institutional criteria. Traits considered inconvenient, such as critical stances or political resistance, may be silenced, while characteristics aligned with the logic of productivity gain centrality. Thus, what initially appeared as a tribute becomes a controlled narrative, marked by power disputes and external interests.

There is also an epistemological fissure to be considered. Educational immortality crystallizes the teacher's thought at a given point in time, preventing them from contradicting themselves, updating, or reformulating ideas. The avatar, by offering a static presence, creates the illusion of continuity but empties the procedural dimension of knowledge. Galvão et al. (2021) highlight this risk, as memory, when converted into a technological artifact, ceases to be a dialogue with the past and becomes the reification of the human as data.

The transformation of teaching experiences into algorithmic artifacts can weaken this character of resistance, draining memory of its political and affective force. Instead of constituting living spaces of remembrance, simulation tends to crystallize static versions that respond more to institutional, or market demands than to the original legacy of educators.

Santaella and Kaufman (2024) reinforce this ambivalence by pointing out that generative AI replicates data and reorganizes it to create content. This characteristic, although powerful, also implies the possibility of distortion, in which the "memory" produced by AI systems is not the same as lived memory, but a recombination that may alter meanings, silence contexts, and produce partial narratives. Castro and Maciel (2025) remind us that, in this scenario, educational immortality requires a critical perspective, since there is a risk of transforming unique human trajectories into generic representations shaped by expectations external to the educational field.

Thus, memory, between tribute and instrumentalization, is constituted as a contested space. While it may preserve voices and contributions, it can also erase them in their complexity, reducing teaching to selected traces. The ethics of educational immortality, therefore, depend on a balance between respect for the dignity of educators and the pedagogical uses intended for their image and legacy.

B. The sociopolitical implications of the virtualization of the teaching figure

Technologies do not operate in a political vacuum. They are developed within structures of power and exclusion (Zuboff, 2023). Who will have the right to remain as an avatar? Which bodies will be digitally immortalized and which will be silenced? There is a risk that only hegemonic and white figures will be recreated, deepening historical inequalities in educational memory. Virtualization, therefore, can perpetuate injustices (Faustino and Lippold, 2023) and symbolically erase teachers who engaged in acts of resistance, undermining the plurality of dissident voices in education.

This political dimension is fundamental because educational immortality is not merely a technical or pedagogical issue, but involves institutional and social decisions about who "deserves" to remain digitally alive. The absence of inclusive policies may lead to scenarios in which counter-hegemonic pedagogies, such as those practiced by popular, quilombola, or Indigenous educators, are rendered invisible, while the memories of teachers aligned with dominant perspectives are preserved and amplified. Zuboff (2023) warns that the logic of platforms tends to reinforce preexisting inequalities, which means that historical exclusions may be projected into the future through digital technologies.

Faustino and Lippold (2023) argue that digital coloniality is not limited to the capture and exploitation of data but also manifests in the selection of narratives that will be perpetuated. The decision about which educators will be recreated in virtual environments is not neutral: it reflects disputes of power and institutional interests. If only certain bodies are digitally reconstituted, the collective memory of education will be marked by absences that reproduce historical silences. In this sense, educational immortality risks becoming a field of symbolic erasure rather than one of plural preservation of teaching.

Castro and Maciel (2025) emphasize that the recreation of educators must be accompanied by ethical and political debates that ensure diversity and inclusion. Without this, the virtualization of teachers may reinforce a flawed institutional memory, in which critical and dissident elements are eliminated. Preserving only certain voices means, in practice, constructing a partial educational narrative shaped by algorithmic logic and cultural hegemony. It is precisely at this point that reflection on educational immortality connects to the struggle for social justice: whose memory will it serve, and whose will remain denied?

C. Reduction of teaching to content repetition

The simulation of deceased human educators does not occur in isolation, as it is part of a broader movement of educational automation. Virtual agents with human-like appearances, created from large language models, may come to occupy roles that once required human presence, attentive listening, and improvisation. This reconfigures the role of the teacher, transforming it into a set of commands and predictable responses aligned with the logic of productivity and technical neutrality (Castro and Maciel, 2025). The algorithmic teacher is efficient and tireless (Emotech.AI, 2025), but liberating education requires context, sensitivity, affectivity, and historicity (Freire, 2013).

This transformation, far from being neutral, compromises the essence of the educational process. By converting the teacher into a flow of ready-made responses, the simulation reinforces the model of "banking education" criticized by Freire (2013), in which the student is reduced to a mere receiver of information. In this scenario, the dialogical dimension of teaching practice is lost, as well as the creative potential that emerges from human interaction. Living pedagogy is replaced by automated teaching, marked by algorithmic predictability.

Santaella and Kaufman (2024) highlight that generative Artificial Intelligence is capable of creating new content from large volumes of data, but this "originality" is limited by the absence of lived experience and the inability to respond to the unexpected. Castro and Maciel (2025) emphasize that teacher avatars may expand access to content, yet their central limitation lies in the impossibility of improvising, making mistakes, or welcoming unexpected situations.

In addition, as pointed out in the report Grand Challenges of Computing Education 2025–2035 (Mota and Ribeiro, 2024), there is a real risk that the growing automation of teaching reduces the act of educating to the mere transmission of information, to the detriment of critical and civic formation. If the presence of the teacher is replaced by algorithmic responses, the very notion of teaching may be impoverished, restricted to data flows without human connection. In this sense, educational immortality reveals a paradox: the more efficient and precise the performance of the algorithmic teacher

appears, the more evident becomes the irreplaceability of the human in educational practice.

II. Conclusion

The emergence of technologies capable of faithfully replicating faces, voices, and behavioral patterns marks a new frontier in the simulation of human presence. These uses, once restricted to entertainment and advertising, are slowly entering the field of education. This transition from real human educators to virtual human educators places under tension the ethical limits of posthumous representation.

It follows that, in the face of advances in generative models and the growing use of avatars, it is important to establish ethical guidelines and public policies that guarantee respect for the memory and dignity of those who dedicated their lives to education. In this sense, educational immortality should not be understood as substitution but as a provocation to rethink the very condition of teaching in times of virtualization.

The analysis carried out in this work, organized in three axes, shows that the discussion cannot be simplified. The first axis demonstrated that teaching memory, when converted into data, runs the risk of ceasing to be an act of tribute and becoming an instrument shaped by external interests. The second axis demonstrated that the choices about who will be immortalized are not neutral: they reflect power relations that may perpetuate historical exclusions and silence counter-hegemonic pedagogies. The third axis revealed the paradox of educational automation, in which the promise of algorithmic efficiency exposes precisely the irreplaceability of the human dimension of teaching.

Thus, the ethical dilemmas of educational immortality are not limited to technique but encompass disputes over memory, politics, and pedagogy. Recognizing that no technology can encompass the totality of teaching experience is essential to ensure that innovation does not reduce education to flows of predictable responses, but preserves its complexity, its historical character, and its transformative potential. As Nora (1997) affirms, memory is an act of resistance, and therefore its preservation cannot be entrusted only to algorithms, but must be situated in human processes of choice, affection, and collective commitment.

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