Article

Digital Resurrection: Challenging the Boundary between Life and Death with Artificial Intelligence

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Abstract: The advancement of Artificial Intelligence (AI) poses challenges in the field of bioethics, especially concerning issues related to life and death. AI has permeated areas such as health and research, generating ethical dilemmas and questions about privacy, decision-making, and access to technology. Life and death have been recurring human concerns, particularly in connection with depression. AI has created systems like Thanabots or Deadbots, which digitally recreate deceased individuals and allow interactions with them. These systems rely on information generated by AI users during their lifetime, raising ethical and emotional questions about the authenticity and purpose of these recreations. AI acts as a mediator between life, death, and the human being, enabling a new form of communication with the deceased. However, this raises ethical issues such as informed consent from users and the limits of digital recreation. Companies offer services like the Digital Resurrection of deceased individuals and the generation of hyper-realistic avatars. Still, concerns arise about the authenticity of these representations and their long-term emotional impact. Interaction with Thanabots may alter perceptions of death and finitude, leading to a potential “postmortal society” where death is no longer viewed as a definitive end. Nevertheless, this raises questions about the value of life and the authenticity of human experiences. AI becomes a bridge between the living and the dead, partially replacing rituals and mystical beliefs. As technology advances, there will be a need for greater transparency in interacting with AI systems and ethical reflections on the role of these technologies in shaping perceptions of life and death. Ultimately, the question arises of whether we should allow the dead to rest in peace and how to balance the pursuit of emotional relief with authenticity and respect for the memory of the deceased. AI becomes a bridge between the living and the dead, partially replacing rituals and mystical beliefs. As technology advances, there will be a need for greater transparency in interacting with AI systems and ethical reflections on the role of these technologies in shaping perceptions of life and death. Ultimately, the question arises of whether we should allow the dead to rest in peace and how to balance the pursuit of emotional relief with authenticity and respect for the memory of the deceased. A deeper ethical consideration is needed on how AI alters traditional notions of life, death, and communication in contemporary society. In this research, an interdisciplinary approach was utilized to conduct a comprehensive systematic review of the recent academic literature, followed by a detailed analysis of two key texts. Central ideas were extracted, and recurring themes were identified. Finally, a reflective analysis of the findings was conducted, yielding significant conclusions and recommendations for future research.

Keywords: AI ethics; technological ethics; death and AI; deadbots; thanabots; digital resurrection; artificial intelligence; technocephalic mimesis

1. Introduction

In a world marked by relentless advances in Artificial Intelligence, an intriguing reality emerges that challenges the fundamental boundaries between life and death: Digital Resurrection. This phenomenon, propelled by continuous technological progress, raises significant questions in bioethics and redefines concepts ingrained in our understanding of existence. Bioethics, tasked with addressing ethical dilemmas in health and human research, faces new challenges arising from the intersection of Artificial Intelligence and fundamental issues such as privacy, assisted decision-making, and risks associated with bioengineering.

This article explores the impact of AI in the context of life and death, highlighting how technology seeks to prolong human life and, uniquely, alter our perception of death.
Emerging from this context, Thanabots, or Deadbots, represent a technological innovation that uses deceased individuals’ “digital trail” to recreate digital interactions, posing profound questions about communication, authenticity, and ethics.

From a biological standpoint, the intrinsic connection between life and death is examined, emphasizing how AI acts as a mediator in this balance, offering the possibility of a digital life beyond biological death. The notion of a “postmortal society” is addressed, where death is no longer the inevitable end but a new beginning in the digital realm.

However, this technological advance has ethical challenges. The question of authenticity in Digital Resurrection, the manipulation of perceived “reality” and the influence of AI on human emotions emerge as critical aspects. Ethical dilemmas surrounding informed consent and data selection to digitally recreate the deceased are explored.

As technology companies offer services ranging from recreating moving ancestors to creating hyper-realistic avatars, concerns arise about the distortion of reality and the possibility of generating false memories. The perception of time and the eventual obsolescence of digital life are also contemplated, questioning the duration and meaning of these digital recreations.

This analysis invites reflection on the ethical implications of Digital Resurrection. It underscores the need for complete transparency in interacting with intelligent systems. In the end, the fundamental question persists: should we allow the dead to rest, even in a world increasingly influenced by the omnipresence of Artificial Intelligence?

To conduct the present study and explore its ethical and philosophical implications, an interdisciplinary methodology was employed, integrating various perspectives including ethics, philosophy, technology, and sociology. The analysis was grounded in a comprehensive review of the academic literature and pertinent documents on the subject that were recently published.

Firstly, a systematic review of the existing literature on Digital Resurrection was conducted, encompassing scientific articles, books, technical reports, and legal documents. This review allowed for the identification of emerging trends, key debates, and gaps in current research on Thanabots and Deadbots.

Subsequently, a detailed analysis of the two provided texts was performed, serving as a starting point for a discussion and a reflection on the ethical, philosophical, and practical implications of Digital Resurrection. Central ideas were extracted, and recurring themes present in the texts were identified, providing a solid foundation for research and development.

Finally, a reflective and critical analysis of the findings was conducted, integrating the various perspectives and evidence gathered throughout the study. This analysis facilitated the formulation of significant conclusions and recommendations for addressing the ethical and philosophical challenges posed by Digital Resurrection, as well as identifying key areas for future research in this constantly evolving field.

2. The Ethical Revolution in the Era of Thanabots beyond Death

With the ever-growing advancement of Artificial Intelligence, a series of challenges arise that pose significant questions for humanity. This reality is no exception, particularly in the bioethics field, as the use and handling of technology bring about a paradigm shift in various issues, especially concerning life and death.

Bioethics, a discipline tasked with analyzing ethical dilemmas in the realm of health and human research [1], is deeply impacted by the influence of AI on various aspects of people’s lives. This phenomenon raises new ethical dilemmas that require careful consideration to make informed decisions. Some of the controversies that have emerged in the field of bioethics due to the advent of AI involve issues such as data privacy (confidentiality), decision-making through this technology (whether assisted or with autonomous systems making decisions for humans), the risks associated with AI-driven bioengineering in genetic manipulation, and access to AI and its benefits.

At the intersection of AI and bioethics, analyzing ethical dilemmas is essential to ethically and responsibly guide the development and implementation of technology. Con-
Continuous reflection in this field is crucial to safeguard the fundamental values of medical ethics and protect human dignity in the era of Artificial Intelligence.

From the premise that AI is a technocephalic mimesis, meaning a computational imitation of human cognitive processes [2], experts have explored how this technology can address the challenge of extending life and delaying death. This translates into benefits such as pain relief and increased well-being. In a broader context, the goal is to enrich human life with technological tools, such as intelligent systems. Technocephalic mimesis diminishes the perception of death in various ways, with support in the grieving process being a topic of particular interest for both the scientific community and the business world.

In times past, death was perceived as the separation caused by spatial distance due to the termination of biological functions. Motivated by grief, rituals and mysticism allowed people to approach their deceased loved ones to interact with them. However, thanks to AI, recreation systems known as Thanabots or Deadbots have emerged. This technology is based on the idea that humans can converse with robots that mimic deceased individuals [3]. AI draws on information from individuals to emulate a person, leveraging emotional, visual, and oral responses. Thus, digital twins of living people are created through reasoning and prediction capabilities [4]. The “digital trail” left in the interaction with technology is used to profile individuals, uncovering their likes, history, trends, affinities, and any traits associated with their personality, especially what is stored on social networks [5]. It is undeniable that humans are connected with Artificial Intelligence, as it is present in multiple environments. The technology of Thanabots, by generating repetitive predefined and automated activities, imitates or replaces human actions, such as engaging in a conversation with a deceased person.

Generally, bots have sought to address issues in the commercial field, particularly in customer or user support. They can interact through written or oral communication. With the integration of other generative AI techniques and the architecture of Pretrained Generative Transformers (GPTs) in Large Language Models (LLMs), not only is it possible to maintain smooth communication, but it is also possible to show empathy and improve coherence in the flow of contextually appropriate responses and questions, thanks to the understanding of linguistic patterns in the context of trust and usefulness [6]. This allows the system to train and refine itself to address user demands more accurately. Deadbots, specifically designed for the Digital Resurrection of deceased individuals based on their digital trail, generate benefits, questions, and challenges in an emerging context. From this perspective, it can be affirmed that AI acts as a mediator between humans and the phenomenon of death.

From a biological standpoint, the death of a person is defined as the irreversible cessation of vital functions, such as cardiorespiratory or brain functions [7]. This scientific perspective coexists with non-scientific approaches, such as the notion of “transitioning to another world”. Ultimately, the phenomenon is summarized in a concrete fact: the material extinction of each individual’s body. The dialectic between life and death generates a mutual interdependence. Death cannot exist without life, and life cannot exist without being interrupted by death. Consequently, human death is intrinsically linked to the unique history each individual builds during their lifetime. The inheritance of information and data we leave behind as we interact with computerized systems may be sufficient to recreate people through bots once they have passed away. With the arrival of Thanabots, death can give rise to a new form of life: digital life.

The theoretical basis supporting the existence of Thanabots is communication. Humans are social beings with an inherent need to relate to others. This mutual dependence implies constant interaction between the parties. Communication and its various forms of expression are the only means we have had to convey messages, ideas, desires, projects, or feelings to others and make them understand to achieve a purpose. Life and death do not escape this reality since individuals want to know about others, especially those they feel connected to, whether they are still alive or have crossed into the static state of death. From an anthropological, cultural, and eschatological perspective, people often
communicate with their deceased loved ones through rituals. The paradigm that arises with Thanabots acts as the bridge between the living human and the dead human. AI, therefore, becomes the mediator that allows messages to flow between these two communicating entities. From an ontological perspective, the living and the dead are entities characterized by their uniqueness and perceive each other through senses and sensors. Is it possible to communicate with a Deadbot in the same way as with a living human? Yes, it is possible in simple terms and in the context of essential communication because it involves senders, receivers, medium, and messages. Therefore, through intelligent systems, the living can share ideas, seek advice, ask for forgiveness, exchange opinions, listen, and be heard or feel companionship with people who have passed away. Every communicative aspect of a living person can be replicated in a digitally recreated person. Why does the technocephalic mimesis represented by Thanabots generate so much anticipation? It is the first time in history that through a positivist approach communication with the dead can be achieved. The impacts of these boundaries are multidimensional, as AI acts as an intermediary between life, death, and human beings, leading to positive and negative ethical changes. In the context of finitude, thanatology is considered as a discipline that helps individuals confront the phenomenon of death and its accompaniment through the adaptation of finitude, ritualization, defense against predation, cooperation, altruism, and mutual aid from group members in the occurrence process [8]. Specifically, for individuals affected by the loss of a loved one, recreating profiles of the deceased through Thanabots can be especially useful in the grieving process, helping to understand complicated thoughts and feelings that arise after death [9]. As the database and computational system become more robust, the communication provided by bots to the living can be further personalized, making the grieving process more manageable through “griefbots” that enable communication between the living and the dead via chat [10]. Is it possible for the living to feel the presence of the deceased?

3. Digital Affection and Emotional Transformation of Users

However, technology has the power to deeply impact human life and significantly modify it through its use. To affect implies creating an effect, and therefore, if AI influences the user, it can modify them in various aspects, such as their way of feeling and perceiving the world. In a dialectical sense, when we interact with technology, we pay attention and project thoughts, emotions, and feelings. This allows technology to provide a response that becomes another stimulus. For example, a video about a tragedy presented by an algorithm can evoke nostalgia in people [11].

In that sense, there has been talk of the hermeneutics of Thanabots to interpret and understand these systems to recognize rhetorical influence, everyday experiences, and the emotions of living users who may come into contact with such technology [12]. Users convey emotions, thoughts, and feelings to the technology, and it returns them in a similar manner. Through the data we leave in the systems, AI deeply affects people because the responses they receive are laden with what they want to know, think, hear, or read. Technocephalic mimesis personalizes feelings and emotions, directing them towards specific objects or situations, associating them with situation assessments, and fostering a tendency to act, leading to physiological, behavioral, and expressive changes [13]. For all these reasons, users of Thanabot systems can be influenced to the extent that they are moved by the personalization of recreations of deceased individuals, especially when features related to the personality of the digitally resurrected individual are added. Similarly, nowadays, data related to affections, feelings, and emotions that arise during interaction with technology can be collected, contributing to the creation of techno-affective knowledge capable of influencing the subjectivity of users of digital systems [14].

Everything we perceive through our senses holds a profound meaning. To the extent that it appeals to the subject, the perceived takes hold of consciousness, provides order to the external world, enhances self-understanding, and shapes how one interacts with others [15]. What we term “others” refers to everything outside oneself, including technology that
can digitally recreate loved ones after their passing, allowing users to experience their presence and evoke emotions from those who are no longer alive. This idea is further reinforced by AI models developed from emotions captured from users, thereby improving facial recognition and response to human emotions [16]. Therefore, it is undeniable that a connection is established between Thanabots and the user. Through human–machine communication, personal relationships with these systems are built based on an established flow of communication grounded in symbols [17].

What could be the emotional and sentimental effects on human beings in the medium and long term through interacting with Thanabots? If people can humanize beings and objects, such as their pets or other belongings, is it feasible to imagine a scenario in which they attribute human qualities to the technology that allows them to interact with those who have passed away? From this perspective, it is argued that the conceptual and phenomenal boundaries between the living and the dead are becoming blurred, thanks to technological mediation.

Death usually arrives unexpectedly, untimely, as humans tend to reject the idea of finitude, especially when it involves emotionally connected individuals. Often, death is resisted because it brings loss and pain. The grief accompanying the passing of a loved one entails a sense of emotional and existential strangeness. To cope with this phenomenon, solace is sought in culture, the mystical, and the psychological, including funeral rituals. Currently, technology-based companies are giving new meaning to these rituals. By offering Deadbot services, they contribute to a conception of grief related to thanato-technology [18]. The Digital Afterlife Industry (DAI) is growing globally due to the emerging experiences resulting from grief over death. These companies are creating connections with the deceased through their memories stored in databases, enabling more than just a simple commemoration; they are generating new ways to cope with the loss of loved ones [19]. These technologies aimed at maintaining a connection with the departed are used to mediate the grieving process and memory, providing a certain comfort based on thanatosensitive design (TSD), which redefines the concept of death in interaction with technology [20].

4. Ethical Exploration and Distortions in Digital Resurrection

To connect with their ancestors, the Israeli company MyHeritage has provided its customers with services related to genealogy and family origins, including family trees, record searches, and DNA testing. One of these services, Deep Nostalgia, launched in 2021, uses automatic learning to identify facial features in photographs of deceased individuals and generate moving images of those individuals. One of the main consequences of this technology is eliciting emotions through the portrayal of captured actions in the pictures, creating heartfelt moments but also raising the possibility of distorting the past or creating false memories [21]. On the other hand, the company HereAfter offers a wide range of services related to death, including funeral services, end-of-life planning, commemoration, and grief support.

The company has developed an application that allows users to store biographical data, such as photos, voice recordings, texts, and other digitized resources, during their lifetime. These data can be used by family and friends after the loved one’s passing to interact with an AI that answers questions, tells stories, and provides advice on behalf of the deceased person. However, using data from deceased individuals raises ethical dilemmas, as they can be recreated without the person’s consent [22]. The South Korean company DeepBrain AI has also ventured into creating hyper-realistic graphical representations of people through its AI video generation platform. Users can input text and obtain videos of avatars that interact realistically. In the context of the digital recreation of human life, these creations can be used to manipulate people, spread misinformation, or create false expectations [23].

DeepBrain’s offering includes Re;memory, a striking creation that allows for a digital replication of oneself but at a high cost, ranging from USD 12,000 to 24,000. This perspective
raises questions about whether the value of existence can be measured in monetary terms. Technology is capitalizing on the desire for immortality, and as the gap widens between those who can afford this “soul copier” and those who cannot, the question arises whether we are on the verge of an even more unequal and superficial society where individuality is reduced to a simulation of bits and dollars. It may be time to reflect on priorities and consider whether true wealth lies in material possessions or the authenticity of human experiences and connections [24]. Microsoft’s patent US010853717 (“Creation of a conversational chatbot of a specific person”) allows for the Digital Resurrection of a person based on the data they left behind in life, such as images, voice data, social media posts, electronic messages, or written letters. This enables interaction with a digitally created personality through AI [25]. However, these recreations are only sometimes accurate, as the collected and processed data can be contextualized improperly and used for purposes different from the original intent [26]. Other options in the market offer digital recreation services, such as Eterni.me and GoodTrust.

If AI systems and the databases they rely on are not robust enough to digitally revive a person, a fundamental question arises: what degree of authenticity will users and customers of such services experience? This consideration raises another question: how much “reality” do living individuals perceive? A central issue in technocerebral mimetic is the approach to “reality”. If we consider the senses as the primary means of understanding the world, following the Cartesian perspective, there is the possibility that those same senses can be deceived. In this analogy, AI could be considered the “evil genius” that disturbs the perception of reality, making the incorrect appear authentic [27]. Thus, through Deadbots, the void left by biological life could be filled, creating a reality based on digital manifestations. However, difficulties arise in addressing “reality” because the frequent use of systems like Large Language Models often leads people to overvalue the responses provided by these computational representations. This results in a distortion of perceptions and confusing or irrelevant responses generated by prompts that the systems do not often interpret correctly due to a lack of clarity or specificity [28]. Even when AI is used for prosocial purposes, the impacts can harm users based on exposure to a “deeply false resurrection” narrative using deepfake technology [29].

With their narrative, there is a suspicion that the nature of the phenomenon of death could change as technology alters the perspective from which we understand life and finitude. Artificial Intelligence, by mediating between death and humans, can change how we approach the phenomenon of finitude. Those using intelligent systems for Digital Resurrection might argue that deceased individuals are not truly dead since they can interact with them through a persuasive personality that alters reality, evoking feelings and emotions through graphic visual and auditory resources and resulting in a digital connection. In this context, it is plausible to claim that, short-term, biological death could be perceived as just another action, potentially reducing the pain, grief, and suffering that typically accompany these phenomena in humans, thanks to Thanabots. Therefore, one could argue that people are evolving toward a “postmortal society”, where death is no longer considered an inevitable end of life [30], as it is now possible to prolong it in a digital existence.

5. Digital Immortality and Regulatory Considerations

AI can act as a bridge between the living and the deceased, assuming the role that rituals and mysticism previously played, becoming the means to establish communication and give meaning to the dialogue with death and those who have “departed”. In this regard, it is imperative to question whether, in many aspects, it is ethical to use Deadbots to meet human and commercial needs. Faced with this reality, it would be advisable to consider the informed consent of AI users, anticipating the use of data and the limits of digital recreations of human beings. When there is no prior statement from the deceased person, questions arise, such as do family members have the right to use the information left by the deceased to digitally recreate them? Can users of Deadbot platforms selectively
choose certain information to shape the Digital Resurrection of their loved ones, picking the characteristics or memories they prefer? Does this data selection not imply the loss of authenticity and personality, presenting a distorted reality? Should we fully recreate the person without restrictions, respecting their personality, even if the deceased desires to delete specific data before being digitally resurrected?

Indeed, the perception of time in the phenomenon of life and death will also be affected by technological intervention through Thanabots. The duration of digital recreations will depend on storage capacity and the frequency and quantity of resurrections of the deceased. The decision to let them be forgotten and the disconnection and lack of remembrance by users of these platforms will also influence the longevity of digital life. This raises the possibility of the obsolescence of digital life when future generations become disconnected from the recreated lives of their ancestors. This brings us back to the starting point, where we could argue that one can “die from digital life” by definitively dying through Digital Resurrection (die a second time). However, will AI maintain its appeal and utility for future generations in this machine self-learning system? And if it fails to maintain that practical and emotional sense of usefulness, should the avatar of the deceased person be disconnected or self-destruct? With the robustness of the systems and the large amount of data for recreating the personality of a dead human, could the system itself part or self-destruct, i.e., “commit suicide”? These questions must be addressed in legislative terms, especially concerning the right to be forgotten within post-mortem rights. It is also crucial to explore the limits of commercialization, emotional ties, and the remembrance of the deceased. This involves ethically considering respect for the dead, even when potential subjects of Digital Resurrection are public figures or cases of social or political interest. Additionally, the solid cultural impact on the sanctification of the body, memory, and rituals in certain regions must be considered.

While the struggle to distance ourselves from death and cling to life continues on various fronts, even in biological terms [31], AI is playing a crucial role by introducing systems of human Digital Resurrection. The digital footprint left by users becomes the administration of life and death through AI-powered death predictions, using comprehensive records of health-related events, education, occupation, income, address, and working hours [32]. The ethical vulnerability of the living and the deceased is a challenge that must be addressed in data collection and decision-making related to the operation of Deadbots. In the phenomenology of life, death and technology can act as mediators and promoters of realities, giving rise to a new perception of the phenomenon where the finitude of the physical or biological may become irrelevant for future generations. Digital life and death should not depend on the acquisition level of this technology but should advance toward democratization. If death is based on “memory”, under what ethical framework and normative process should we digitally recreate people? From a Wittgensteinian perspective, Digital Resurrection as a technology and its usefulness should not make us lose the meaning of our own lives [33]. The biological objection analyzed from Alan Turing’s perspective argues that Artificial Intelligence can never be intelligent due to the absence of organic life. The consideration presented here is the possibility of opening a new paradigm in the conception of the nature of life and death by characterizing the phenomena experienced by technology users [34]. Let us start by generating transparency, informing AI users that they are interacting with machines, and then reflect on whether allowing the dead to rest is possible and necessary.

6. Conclusions

Digital Resurrection, facilitated by Artificial Intelligence, brings forth many ethical and philosophical challenges that transcend traditional boundaries between life and death. As AI becomes a technocephalic mimesis, mimicking human cognitive processes, its application in bioethics raises new questions and dilemmas. Within this context, there are underlying bioethical challenges and impacts on human life, as Digital Resurrection poses ethical concerns related to data privacy, autonomous decision-making by AI on human
matters, risks associated with AI-driven bioengineering, and access to the benefits of AI. Likewise, AI becomes a tool to address issues related to life and death, aiming to alleviate pain, enhance well-being, and change the perception of death.

Furthermore, Thanabots are considered mediators of communication between the living and the deceased through systems that recreate interactions with deceased individuals. These systems draw on the information left by individuals to emulate their personalities. The AI acts as a mediator, facilitating communication between humans and the phenomenon of death, altering perceptions, and creating digital connections.

In the interaction with such systems, impacts are created within individuals in the short and long term, as Deadbots can have emotional and sentimental effects, allowing the living to experience the presence of the deceased. Technology can profoundly influence people by personalizing responses and affecting their perception of the world through interaction with AI.

Similarly, it is necessary to consider ethics in Digital Recreation, as dilemmas such as the informed consent of the deceased, the selection of data for recreation, and the authenticity of the resurrected personality are apparent. Technology companies offer services that blur the boundaries between the living and the dead, generating new ways of facing loss and grief.

With the arrival of these systems, there is a transformation in the perception of death, as AI alters the experience of the finitude phenomenon, introducing the possibility of a “postmortal society” where biological death is no longer considered an inevitable end. The question arises as to whether digital death can lead to a “death of digital life”, raising the issue of the obsolescence of digital life and AI’s autonomy.

Finally, future challenges and reflections emerge as Digital Resurrection raises the need to address ethical vulnerability, transparency in AI interaction, and the democratization of these technologies. There is a call for reflection on the role of technology in constructing new realities, considering ethical, normative, and philosophical limits.

In conclusion, the convergence of AI and Digital Resurrection challenges fundamental notions of existence, posing crucial questions about ethics, communication, the perception of reality, and the transformation of the human experience of life and death.

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