Recursive Necropolitics: Historical antecedents and contemporary practices of AI afterlives

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ABSTRACT

This article examines the concept of recursive necropolitics in the context of AI death technologies, tracing historical antecedents and contemporary manifestations. By analyzing 19th-century phenomena such as the Paris Morgue, L'Inconnue de la Seine, and anatomy museums alongside modern AI innovations like deepfakes and griefbots, the study reveals enduring patterns in how societies use technology to mediate, commodify, and control death. Through the frameworks of spectacle gaze, mechanical virality, and necro-technological recursion, the article demonstrates how AI death technologies extend long-standing practices of managing mortality while reinforcing social hierarchies. The analysis engages with ethical implications such as posthumous privacy, consent, and environmental impact, situating these concerns within a broader historical and necropolitical context. By illuminating the recursive nature of death technologies across time, this research offers critical insights into the societal and ethical challenges posed by AI's role in shaping our relationship with mortality.

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I. Introduction: Recursive Necropolitics and the Afterlife of AI

In the age of artificial intelligence (AI), technologies are reshaping many aspects of human life, and their potential impact on death and mourning is particularly provocative. AI-driven innovations include griefbots, which simulate conversations with the deceased, and deepfakes, which offer "digital resurrections." While these technologies seem novel, this article argues that they are part of a long historical continuum of technological interventions in death. Rather than representing radical breaks from the past, contemporary AI death technologies extend centuries-old practices of using technology to mediate, commodify, and control experiences of death.

To understand this historical continuity and its implications, this article draws upon Katherine Verdery's (1999) concept of enchantment, which examines the non-rational, emotional, and often sacred qualities attributed to dead bodies and their representations. Verdery demonstrates how this enchantment imbues the dead with profound cultural and political significance, shaping collective memory and reinforcing social hierarchies. This article extends Verdery's framework beyond physical bodies to encompass digital remains, arguing that AI death technologies generate new forms of enchantment that bridge material and virtual domains. This technological enchantment operates alongside what Walter Benjamin (1935/2008) termed "aura"-the unique presence of an artwork in time and space. As death-related imagery moves from physical to digital reproduction, these technologies transform rather than diminish the aura of the dead, creating new forms of posthumous presence and power.

Through this theoretical lens, the article introduces the concept of "recursive necropolitics." Building upon Achille Mbembe's (2003) notion of necropolitics-which examines how sovereign power determines who may live and who must die-recursive necropolitics explores how power over death recursively manifests through technology across different historical periods. This recursive nature is evident in three key mechanisms through which technological enchantment operates, each examined in both historical and contemporary contexts:

The Spectacle Gaze: The technologically mediated transformation of death into a public exhibition that paradoxically combines rationality and objectivity with spectacle and fascination. This manifestation of enchantment reinforces social hierarchies and cultural norms through the commodification of mortality, mutually constituting scientific epistemologies and affective intensities.

Mechanical Virality: The widespread dissemination of death-related imagery through various technologies, both historical and contemporary. This process amplifies and transforms the enchanted aura of these artifacts, shaping collective imagination and cultural memory. By revealing how viral spread predates digital media, this concept illuminates longstanding patterns in societal engagement with death.

Necro-technological Recursion: The iterative process by which death-related technologies, often rooted in violent or exploitative practices, are repurposed as socially beneficial. This form of enchantment obscures ethical concerns by framing these technologies as advancements in education, science, or well-being, thereby concealing the violence inherent in their creation and perpetuation.

These mechanisms, while manifesting differently across historical periods, reveal the persistent ways in which societies leverage technology to shape our relationship with mortality. Their power derives from the enchanted nature of death technologies, which transform the dead into potent symbols that both reflect and reproduce power relations.

While the artifacts and technologies examined in this article-ranging from contemporary griefbots and pornographic deepfakes to 19th-century morgue tourism, death masks, and anatomical models---might be superficially regarded as trivial cultural ephemera or anomalous historical phenomena, this study contends that such an assessment would

constitute a significant oversight. These sociotechnical assemblages (Latour, 2005) are deeply implicated in necropolitical systems (Mbembe, 2003), functioning as mechanisms through which power is exercised over death and memory. Their enchanted nature (Verdery, 1999) imbues them with profound cultural and political significance, positioning them as critical sites for the negotiation of societal norms, the reinforcement of hierarchies, and the control of collective narratives surrounding life, death, and the body. As such, these artifacts and practices demand rigorous anthropological and STS analysis to unveil their role in shaping societal engagement with mortality and perpetuating power structures.

By placing AI death technologies within a broader historical context and examining 19th- and early 20th-century phenomena such as the Paris Morgue, L'Inconnue de la Seine, and anatomy museums, this article traces how societies have long used technology to mediate death in ways analogous to contemporary AI innovations. Through this analysis, the article contributes to the growing discourse on the ethical and societal implications of AI technologies by exploring the historical continuities of contemporary ethical concerns, such as posthumous privacy, consent, and the reinforcement of social inequalities.

This historical analysis is particularly crucial as AI technologies increasingly reproduce and amplify social hierarchies in ways that echo 19th-century practices. As Ruha Benjamin (2019) demonstrates in *Race After Technology*, contemporary AI systems often naturalize social categories as biological facts and reinforce existing power structures through technologies like facial recognition and predictive policing. These modern technologies, much like their historical counterparts in anatomy museums and morgues, derive their authority from claims of scientific objectivity while simultaneously reproducing and legitimizing social inequalities. By examining historical antecedents, we can better understand how current AI technologies extend long-standing patterns of technological mediation that have consistently served to classify, control, and commodify certain bodies while reinforcing existing social hierarchies.

This article is structured in four main sections. Following the introduction, Section II examines contemporary AI death technologies, focusing on deepfakes and griefbots. Section III explores historical antecedents, analyzing the Paris Morgue, L'Inconnue de la

Seine, and anatomy museums through the lenses of spectacle gaze, mechanical virality, and necro-technological recursion. The article concludes with Section IV, which synthesizes these historical and contemporary perspectives to offer insights into the ethical implications of AI's role in mediating death and memory.

This interdisciplinary approach, which integrates history, anthropology, and technology studies, provides new insights into AI's role in mediating death and memory. By situating AI death technologies within this broader historical frame of recursive necropolitics and technological enchantment, the article offers critical perspectives on the societal challenges that these innovations pose, illuminating the enduring ways in which technology shapes our relationship with mortality and perpetuates power structures surrounding death.

II. AI Death Technologies

Artificial intelligence (AI) has ushered in new ways to engage with mortality. Two prominent examples are deepfakes and griefbots. Both utilize advanced AI algorithms to create digital representations of the deceased, yet they differ in their applications and the nature of the interactions they offer.

Deepfakes, a portmanteau of "deep learning" and "fake," refer to AI-generated media that create or manipulate audio and visual content to depict realistic representations of individuals. Deepfakes can be used to create simulacra of the living, the dead, and the purely synthetic. This article considers their use in the "digital resurrection" of the deceased by creating new content from existing footage. Griefbots, in contrast, simulate conversations with the deceased using their digital footprints, such as social media posts or text messages, to construct an interactive persona.

Deepfakes: Digital Resurrection

Deepfake technology relies on advanced machine learning techniques, particularly Generative Adversarial Networks (GANs). GANs consist of two neural networks-a

generator and a discriminator-that iteratively improve the quality of the generated content. The generator creates fake images or videos, while the discriminator evaluates them, attempting to differentiate between real and fake content. Over time, this adversarial process results in increasingly realistic simulations (Farid, 2022).

Deepfakes have been employed in a range of contexts, from commemoration to entertainment. In the context of death, the likeness of the late actress Carrie Fisher was recreated using deepfake technology for *Star Wars: The Rise of Skywalker* (2019). Similarly, the documentary *Roadrunner* (2021), about the late chef Anthony Bourdain, controversially used AI to generate his voice, sparking debates about posthumous consent and the ethics of AI-generated content (Wall, 2022). AI has also been used in educational contexts. For example, in 2022, the UK-based Holocaust Educational Trust used AI to create an interactive experience with Holocaust survivor Marina Smith, who had passed away. This deepfake allowed her to "answer" questions about her experiences (Boswell & Rowland, 2023).

These applications raise significant ethical concerns. The issue of consent is paramount, as the deceased cannot provide permission for the use of their likeness or voice. Existing legal frameworks governing posthumous privacy are ill-equipped to handle the implications of deepfakes (Harbinja, 2017; Wall, 2022). The creation of digital avatars without explicit consent from the deceased risks infringing on their autonomy and dignity.

The use of deepfakes also poses significant risks for politics and democracy. In recent years, deepfakes have been used to digitally resurrect political figures in campaigns, as seen in India and Indonesia, where deceased leaders were digitally manipulated to endorse political candidates (Chesney & Citron, 2019). This practice raises concerns about distorting political legacies and voter manipulation (Pawelec, 2022).

Moreover, the mere existence of deepfake technology can erode trust in legitimate media. The "liar's dividend" refers to the ability of public figures to dismiss authentic incriminating evidence by claiming it to be a deepfake, thus evading accountability (Chesney & Citron, 2019). The asymmetric nature of deepfake technology-where creation is becoming increasingly accessible while detection remains challenging-exacerbates power imbalances in information dissemination, particularly in contexts

where authoritarian regimes might leverage deepfakes to control narratives or discredit opposition.

While political and democratic threats from deepfakes are growing, their most prevalent use remains in the creation of non-consensual pornography. Wagner and Blewer (2019) report that 96% of the 85,000 deepfakes circulating online feature non-consensual, sexually explicit content involving women. This disproportionate targeting of women highlights how deepfake technology perpetuates patriarchal structures and extends gender-based violence into the digital realm (Laffier & Rehman, 2023; Noble, 2018).

This technological violence against women cannot be separated from broader patterns of femicide and necropolitical control over women's bodies. The virtual violation enabled by deepfakes exists on a continuum with physical violence against women, demonstrating how digital technologies can amplify and extend existing forms of gendered necropower. Through deepfakes, the appropriation of women's images becomes a form of symbolic death - a technological erasure of agency that parallels and potentially enables more direct forms of violence.

Griefbots: Simulated Connection

In contrast to deepfakes, griefbots primarily engage through text or voice interactions, although robotics are also under development. Where deepfakes resurrect the body in digital form, griefbots offer synthetic simulations of the mind.[1] Utilizing large language models (LLMs), such as GPT (Generative Pre-trained Transformer), griefbots analyze and mimic the speech patterns of the deceased, creating interactive digital personas that can simulate a lifelike conversation.

The functionality of griefbots centers on simulating conversations with the deceased, offering a form of continued connection for the bereaved. These systems analyze and learn from the digital footprint left behind by the deceased-including text messages, social media posts, emails, and other personal data-to create an interactive digital persona that can engage in dialogue with the living. Griefbots can continue to adapt and learn from interactions, changing over time (Jiménez-Alonso & Brescó de Luna, 2023; Bao & Zeng, 2024).

An early example of griefbot technology dates to 2016, when entrepreneur Eugenia Kuyda created a chatbot based on the text messages of her deceased friend, Roman Mazurenko. Using AI to simulate his personality, the chatbot allowed people to interact with an AI version of Mazurenko (Kneese, 2023). Kuyda eventually founded the startup Replika. Another notable instance is the Dadbot, created by journalist James Vlahos in 2017, designed to simulate conversations with his father after his death. Vlahos later founded HereAfter AI, a service that allows people to create interactive, AI-powered digital avatars of themselves or others. These avatars, much like the Dadbot, use recordings of voice, stories, and memories to simulate conversations (HereAfter AI, 2023).

While offering novel avenues for memorialization, griefbots present significant ethical challenges that extend beyond individual use cases to intersect with broader societal concerns. As with deepfakes, a primary issue is consent and posthumous agency, as the deceased cannot provide explicit permission for their digital footprint to be used in this manner. This potentially infringes on rights to privacy and autonomy even after death. The vast amounts of personal data required to create and operate griefbots also raise significant privacy and security concerns (Öhman and Floridi, 2018).

Griefbots claim to offer valuable psychological support for bereavement. While these technologies may provide solace, they also risk complicating the grieving process (Fabry & Alfano, 2024; Hollanek& Nowaczyk-Basińska, 2024; Krueger & Osler, 2022)

Extended interactions with griefbots may lead to complicated grief, where individuals struggle to process their loss due to the persistent digital presence of the deceased. Furthermore, griefbots, like other large language models (LLMs), may make inappropriate remarks or give false or misleading information. For example, Kevin Roose wrote in *The New York Times* about an interaction with Bing's chatbot in which it told him to leave his wife (Roose, 2023). In the context of bereavement, such unsettling exchanges hold potential for adverse psychological consequences.

The reliance on technology companies to maintain griefbot services introduces the possibility of secondary loss if services are discontinued. The long-term psychological consequences of these technologies remain largely unknown and warrant careful study (Bao & Zeng, 2024; O'Connor & Kasket, 2022).

The commercialization of griefbot services raises concerns about the commodification of grief, potentially transforming deeply personal experiences into transactional encounters. This commodification is implicated in the digital divide and social inequalities, as these new forms of engagement with death are primarily accessible to those with technological resources and digital literacy. As Öhman and Floridi (2018) argue, this exacerbates the digital divide in death, potentially deepening existing inequalities in how different individuals and communities are remembered and memorialized.

From issues of posthumous consent and psychological well-being to the potential for grief commodification and exacerbation of social inequalities, the use of griefbots intersects with intimate personal and broader societal concerns.

Necropolitical Implications

AI death technologies must be understood within the broader ethical framework that governs AI more generally. AI ethics has traditionally focused on issues of fairness, such as mitigating biases and ensuring equitable access to technological benefits. However, these discussions increasingly extend beyond fairness to address deeper concerns about justice, power, and the societal impacts of AI systems.

AI systems, including death technologies, are embedded in political and social power structures, influencing mechanisms of control, surveillance, and punishment. These technologies often perpetuate a range of harms, from racialized discrimination in credit scoring and biased predictive policing (Angwin et al., 2022; Benjamin, 2019), to labor exploitation and social sorting. For example, AI can reinforce socioeconomic inequalities by determining access to resources, employment opportunities, and social services, often disadvantaging marginalized groups (Birhane, 2021; Eubanks, 2018). Furthermore, the development of AI technologies frequently exploits human labor and natural resources, disproportionately impacting marginalized communities and the Global South (Crawford, 2021; Milan & Treré, 2019).

To fully understand AI death technologies, it is essential to move beyond individual considerations of fairness and explore the larger structures of power they are implicated in. Achille Mbembe's (2003) concept of necropolitics-where power is exercised through

the control over life and death-provides a critical lens through which to examine these technologies.

Necropolitics, refers to the way sovereign power determines who may live and who must die, expanding on Michel Foucault's concept of biopolitics (2003). Necropolitics examines how political, social, and technological systems create "zones of exception," exposing marginalized or racialized groups to heightened risks of harm or death. Power is not only about governing life but also about managing death, deciding whose lives are valued and whose are disposable.

In the context of AI technologies, necropolitics can be seen in the way AI systems are used to reinforce power asymmetries that expose certain groups to harm or violence (McQuillan, 2022; Pele & Mulholland, 2023; Ricaurte, 2022). From the racial profiling built into predictive policing algorithms to the exploitation of labor in the development and operation of AI systems, these technologies often perpetuate societal inequalities that dictate who benefits from technology and who suffers. AI systems in areas such as surveillance, warfare, and migration control actively shape which populations are subject to heightened risk, violence, or exclusion, aligning with Mbembe's analysis of how power determines life and death.

AI death technologies, specifically, are deeply enmeshed in necropolitical structures by influencing not just the treatment of the living but also the control over the dead. These technologies, which may involve AI-generated representations of the deceased or systems that manage posthumous digital identities, operate within a framework of power that extends beyond life. Control over digital narratives of the dead, for example, can be seen as a form of posthumous governmentality, where algorithms and systems control who is remembered, how they are remembered, and whose death is rendered visible or invisible in collective memory. These technologies introduce new forms of necropolitical governance by extending power over life and death into the realm of memory and posthumous identity. For instance, AI-driven representations of the deceased can be used to manipulate narratives about historical figures or victims of state violence, further entrenching existing power structures.

Moreover, the environmental impact of AI death technologies adds another layer to these necropolitical considerations. Strubell et al. (2019) demonstrate the substantial energy

demands of AI systems, implying ongoing environmental costs likely to be borne disproportionately by vulnerable populations globally.

In conclusion, necropolitics offers a vital framework for understanding how AI death technologies intersect with power structures. These technologies extend the control over life and death into the digital realm, influencing memory, identity, and environmental futures, making them key sites for ethical and political negotiation.

III. Historical Antecedents

Although recent AI technologies appear groundbreaking, they continue a long tradition of technological mediation in death. This section examines key historical phenomena such as the Paris Morgue, *L'Inconnue de la Seine*, and anatomy museums, to trace the continuities between historical and contemporary death technologies. By analyzing these case studies through the frameworks of spectacle gaze, mechanical virality, and necro-technological recursion, this section traces how societies have long used technology to mediate death in ways analogous to AI death technologies.

The Paris Morgue and the Spectacle Gaze

The Paris Morgue, established in 1804 on the Quai du Marché Neuf, serves as a compelling example of how technology has historically mediated the public's interaction with death. Initially conceived as a utilitarian facility for identifying unclaimed bodies, the morgue quickly evolved into a popular attraction, drawing crowds from all walks of life and blurring the lines between forensic science, public service, and entertainment. This transformation of death into public spectacle embodies what can be termed the spectacle gaze, a concept that builds upon Guy Debord's theory of the society of the spectacle and Michel Foucault's notion of the medical gaze.

Throughout the nineteenth century, the morgue endured as an enormously popular site, receiving about a million visitors annually-sometimes as many as 40,000 in a single day (Schwartz, 1998). "It would be difficult to find a Parisian, native or transplanted, who

does not make his pilgrimage," a Parisian newspaper declared in 1892 (Schwartz, 1998, p. 46). Parisians of all classes visited the morgue, as Zola vividly described in *Thérèse Raquin*:

> [A] mixed and disparate public that pities and sneers together. Workers entered on their way to work...then came the petits-rentiers, thin and dried-up old men, flâneurs who entered out of idleness... Women were to be found in large numbers...with big attentive eyes, as if standing in front of a department store window display (in Schwartz, 1998, p. 65).

Accounts from the time describe the generally festive atmosphere surrounding morgue visits. Crowds gathered as if attending a fair and vendors sold refreshments with "coconut, gingerbread, and toys" among their wares (Schwartz, 1998, p. 78). The morgue was described by one newspaper as a "genuine fairground" (Ibid.). In this setting, death became commodified and presented for public consumption. Although entry to the morgue was free, vendors catered to the crowds, and newspapers capitalized on the morgue's draw with lurid headlines. In April 1895, after the bodies of two young girls were pulled from the Seine and displayed side by side, 10,000 people visited within the first ten days. Newspapers ran lurid headlines and asked "Are these two sisters?" (Schwartz, 1998, p. 45).

The morgue's popularity was not limited to locals. It also attracted tourists, and it was prominently featured in British tour books, often as a stop on organized tours of the city. Tourists not only observed the unidentified bodies but also viewed the working-class crowds, whose fascination with the dead was portrayed as particularly vulgar and uniquely French (Vita, 2003). Cole's *Imperial Paris Guide*, published in the 1860s, described the morgue as a "chamber of horrors" and "a place of irresistible attraction to the lower orders, who never pass by without looking in" (in Vita, 2003, p. 248).

Charles Dickens, in his essay *Travelling Abroad* (1863) remarked on how he was repeatedly drawn to visit: "Whenever I am at Paris, I am dragged by invisible force into the Morgue. I never want to go there, but am always pulled there." He describes seeing

"an old grey man lying all alone on his cold bed, with a tap of water turned on over his grey hair, and running, drip, drip, drip, down his wretched face" and another man "whose disfigurement by water was in a frightful manner comic" (1997, p. 196). Dickens's description captures the morgue's strange power to provoke both existential reflection, morbid curiosity, and even comedy, reflecting the complex responses evoked by viewing the dead.

The morgue's design reflected both its practical forensic purpose and its unexpected role as a site of public entertainment. As Bertherat (2005) describes, the building featured a salle du public, an empty room with large doors opening onto the quai, and a salle d'exposition, where bodies were displayed on slanted metal slabs. Visitors stood behind large plate-glass windows, separated from the bodies. A visitor in the 1820s noted, "The big high windows perfectly light the marble ramps on which the corpses are placed. Vast closed-off windows permit people to examine the corpses without being exposed to their fumes" (in Schwartz, 1998, p. 51).

On the Spectacle Gaze

This architectural arrangement facilitated what Foucault (1973/2004) termed the medical gaze-a dispassionate, objective approach that emerged in the 18th and 19th centuries, where the body was viewed as an object of study, often through dissection and clinical observation. This gaze was characterized by a detached, scientific analysis, where the identity of the individual was secondary to the mechanisms of the body. Figures like Xavier Bichat typified this shift, arguing that to understand disease, one need only "open a few corpses,"-a command tying the medical method closely to the morgue where cadavers were examined and dissected (Foucault, 2004, p. 146).

The Paris Morgue exemplified a duality between clinical detachment and voyeuristic fascination, aligning with Debord's (1967/1994) concept of the "society of the spectacle." Debord argued that modern societies replace authentic experiences with representations, where "all that once was directly lived has become mere representation" (p. 12). The morgue transformed death into a spectacle for public consumption, with bodies behind glass becoming commodified images divorced from their lived

experiences. As Zola noted, these displays resembled "department store window displays," turning the dead into objects of fascination and entertainment. This spectacularization of death reflected broader societal trends towards the mediation of experience through images and representations, blurring the lines between reality and its representation.

The public was invited in appeals to civic duty to observe and, ostensibly, aid in forensic efforts by identifying bodies. However, the crowds were equally drawn by the opportunity to witness the spectacle of death. The crowds also drew close to the windows to cast not just a medical gaze, but to look in horror and fascination, to jostle and jeer. As Daston and Galison (2021) argue, objectivity and subjectivity are inseparable, mutually defining concepts (p. 37). The medical and spectacle gazes coexisted in the morgue, with the scientific and dispassionate intertwined the passions of the crowd. These gazes were not simple oppositions but mutually constituted, reflecting the complex role of the morgue in 19th-century Parisian society.

This public display of death acted as a form of social control, reminding visitors of their own mortality and the consequences of vice or criminality (Bertherat 2002). The morgue became a site where the state's ability to read and interpret bodies was publicly demonstrated, reinforcing its authority over life and death. The bodies on display were predominantly those of the urban poor, including the many rural migrants who had moved to Paris seeking work. The bodies of the bourgeoisie rarely appeared behind the morgue's windows. Through both the medical and spectacle gazes, the morgue helped naturalize social hierarchies by making certain bodies - primarily those of society's most vulnerable members - available for public scrutiny. Through both the medical and spectacle gazes, the morgue helped naturalize social hierarchies. The morgue was a site of the scientific production of categories of deviance and criminality and through the titillating display of violence and vice, these social categories were infused with the disavowed power of the spectacle. In this way, the spectacle gaze contributed to the ideological work of categorizing and controlling certain bodies while reinforcing existing social inequalities. State authority was derived not just from institutional power but from the enchanted nature of the displayed bodies themselves, which transformed anonymous corpses into potent symbols of both scientific progress and moral instruction.

The spectacle gaze, as exemplified by the Paris Morgue, reveals how technology has long been used to mediate public engagement with death. This historical case prefigures contemporary AI death technologies, such as deepfakes, where the dead are similarly turned into digital spectacles for public consumption, the windows of the morgue transformed into the screens of phones and laptops.

L'Inconnue de la Seine and Mechanical Virality

In the late 19th and early 20th centuries, the death mask of an unidentified young woman found in the Seine River became a widespread cultural icon, disseminated through plaster casting technology. This article argues that by examining the case of *L'Inconnue de la Seine*, we can trace how virality has long been a feature of media technologies, shaping cultural engagement with death and memory. The historical phenomenon of what this article calls "mechanical virality" reveals continuity between historical and contemporary forms of adoption and circulation, expanding the notion of virality beyond its digital confines. L'Inconnue's journey from anonymous death mask to cultural touchstone illustrates how technological affordances, coupled with cultural resonance, can propel artifacts to viral status even in pre-digital contexts.

The story of *L'Inconnue de la Seine*, a young woman whose death mask became a cultural phenomenon in the late 19th and early 20th centuries, exemplifies the complex interplay between death, gender, and technological reproduction in European culture. According to the prevailing narrative, the body of an adolescent young woman, thought to be a suicide victim, was recovered from the River Seine in Paris in the late 1880s. Following standard procedure for unidentified bodies, she was taken to the Paris Morgue for potential identification. The narrative suggests that a pathologist, captivated by her serene expression, ordered a plaster cast of her face.

The death mask of *L'Inconnue de la Seine* became an iconic fixture in European culture in the late 19th and early 20th centuries (Saliot, 2015). By the 1920s, her enigmatic expression, often compared to the Mona Lisa, had captivated the public imagining, leading to the mass production of plaster casts that adorned homes, studios, and galleries in France and beyond. Alvarez (1971/1985) reports, "During the 20s and early 30s, all

over the Continent, nearly every student of sensibility had a plaster-cast of her death-mask... and a whole generation of German girls modeled their looks on her" (p. 156). The widespread popularity of the mask circulated far beyond its origins in the Paris Morgue. The mask's ability to captivate and proliferate stemmed from its enchanted status -- neither fully death mask nor art object, but a liminal artifact that commanded both emotional and aesthetic power.

The creation and subsequent popularization of L'Inconnue's death mask must be understood within the broader context of 19th-century European death culture. Death masks were frequently produced and served multiple purposes during this period, ranging from forensic identification to memorial keepsakes (Pinet, 2002). While death masks were often created for public figures to preserve their features for posterity, in the case of *L'Inconnue,* her anonymity paradoxically contributed to her mass appeal.

The ambiguity surrounding L'Inconnue's identity allowed her image to become a projection screen for cultural anxieties and fascinations, particularly those related to death and sex. As Romanska notes, the "emptiness of the female corpse 'freed the poet to impose any meaning he wished on her image'" (Lehman, 1996, p. 55), while being "tantalized by the void which is exhibited in her" (Chambers, 1971, p. 11) (Romanska, 2005, p. 38). This malleability of meaning significantly contributed to the mask's enduring appeal and spread, prefiguring how modern memes gain traction through reinterpretation and adaptation.

L'Inconnue's popularity can be situated within a broader cultural tradition that Romanska (2005) terms "NecrOphelia," referring to the 19th-century fascination with the eroticized aesthetics of the female corpse. This tradition, epitomized by Edgar Allan Poe's claim that "the death of a beautiful woman is, unquestionably, the most poetical topic in the world," reflects deeply ingrained societal attitudes about gender, beauty, and mortality. Romanska notes that "every nineteenth-century household with aspirations to cultural elitism considered it imperative to own and display a portrait of a dying girl" (2005, p. 35), underscoring the pervasiveness of this cultural phenomenon.

The gendered nature of L'Inconnue's popularity reflects broader cultural tendencies of the time. As Berger (1972/2008) famously stated in *Ways of Seeing,* "Men look at women. Women watch themselves being looked at" (2008, p. 47). In

death, *L'Inconnue* became the ultimate object of the gaze, unable to return or challenge the viewer's look. This dynamic underscores the power imbalances inherent in the representation and consumption of female images, an issue that continues to resonate in contemporary discussions about gender and media.

Despite debates among historians about the veracity of *L'Inconnue's* origin story, with some scholars arguing that the mask may have been created from a living model or that the narrative itself is apocryphal (Pinet, 2002), the cultural impact of *L'Inconnue* remains undeniable.

Artistic and cultural engagement with *L'Inconnue* extended beyond her physical mask. She became a muse for numerous artists and writers. Notable figures such as Rainer Maria Rilke, Louis Aragon, and Vladimir Nabokov referenced her in their works, while Man Ray created photographic interpretations of her image. The reproducibility of the mask and the works it inspired allowed it to circulate within artistic and intellectual circles, solidifying its place in European cultural consciousness.

Rilke, in his semi-autobiographical novel *The Notebooks of Malte Laurids Brigg* (1910/2011), vividly describes encountering the mask: "The mouleur, whose shop I pass every day, has hung two masks beside his door. The face of the young drowned woman, a cast of which was taken in the Morgue because it was beautiful, because it smiled, smiled so deceptively, as though it knew" (2011, p. 263). This passage not only illustrates the ubiquity of L'Inconnue's image but also highlights the complex interplay of signifiers her mask conveyed---beauty, death, otherworldly knowledge.

On Mechanical Virality

The industrialization of plaster casting techniques in the late 19th and early 20th centuries played a pivotal role in the dissemination of L'Inconnue's image. The period saw the emergence of dedicated plaster casting workshops capable of producing large quantities of high-quality replicas quickly and at relatively low cost (Risdonne et al., 2022). The affordances of plaster as a medium-its malleability, quick-setting properties, and ability to capture fine details-made it ideal for reproducing complex forms like

facial features. These properties, combined with advancements in casting techniques and materials, improved the efficiency of production and the quality of casts.

The mass production of plaster casts democratized access to art and cultural symbols, allowing ordinary people to bring replicas of famous artworks into their homes, a privilege previously reserved for the wealthy. Middle-class consumers eagerly sought plaster castings of death masks, classical sculptures, and other decorative objects to adorn their homes with objects that reflected taste and status (Risdonne et al., 2022).

This democratization parallels the way digital technologies have transformed access to information and cultural artifacts in our own era. Just as digital platforms have made vast repositories of knowledge and art available to global audiences, plaster casts in the 19th century made art and cultural symbols accessible to a broader public, fundamentally altering the relationship between art, reproduction, and society.

Advances in plaster technologies allowed the L'Inconnue's image to be produced at scale and achieve what I term "mechanical virality," referring to the rapid and extensive spread of objects through mechanical reproduction, prefiguring contemporary digital virality. This early form of virality shares key characteristics with modern digital virality: circulation, cultural resonance, and the ability to inspire imitation and adaptation. However, it operated on a different temporal scale, with dissemination occurring over years rather than hours or days. The concept of mechanical virality challenges us to reconsider the historical roots of viral phenomena, suggesting that the underlying dynamics of rapid cultural spread predate digital technologies.

The phenomenon of *L'Inconnue de la Seine* can be understood as a precursor to modern internet memes. Limor Shifman (2013), in their seminal work on internet memes, defines them as "units of popular culture that are circulated, imitated, and transformed by individual users, creating a shared cultural experience in the process" (p. 18). While Shifman's definition is rooted in digital culture, it aptly describes the way *L'Inconnue's* image circulated and evolved in the late 19th and early 20th centuries. Like contemporary digital phenomena, *L'Inconnue's* image spread rapidly, was easily reproducible, and invited multiple interpretations and variations, evident in how different artists and writers interpreted and reinterpreted her image. The death mask, as a proto-

meme, became a symbol onto which people could project their own meanings and emotions, much like how internet users adapt and recontextualize memes today.

The *L'Inconnue's* mechanical virality challenges the notion that memetic spread is unique to the digital age. Instead, it suggests that the viral spread of cultural artifacts is a longstanding phenomenon facilitated by whatever reproductive technologies are available. As Stein et al. (2013) argue in their work on "spreadable media," the circulation of media content has always depended on both the technological affordances of reproduction and the cultural practices of sharing and reinterpretation.

In his seminal work "The Work of Art in the Age of Mechanical Reproduction" (1935/2008), Walter Benjamin argued that mechanical reproduction fundamentally alters our engagement with art, diminishing what he termed the "aura" of an original work. For Benjamin, aura encapsulated the unique presence of an artwork in time and space, its authenticity, and its embeddedness in tradition. Benjamin theorized that as art became more reproducible, it would lose its ritual function and instead gain a political one.

However, in the case of the mechanical virality of *L'Inconnue de la Seine's* death mask, reproduction seems to have retained and even amplified its aura. This paradox invites us to reconsider the relationship between reproduction and aura. Latour and Lowe (2011) offer a valuable perspective with their concept of "aura migration." They argue that an original object's aura can transfer to its reproductions, especially when those reproductions are created with care and circulated in meaningful contexts: "the real phenomenon to be accounted for is not the punctual delineation of one version divorced from the rest of its copies, but the whole assemblage made up of one -or several- original(s) *together with* the retinue of its continually re-written biography" (p. 4).

In the case of *L'Inconnue,* each new cast of her face contributed to the "biography" of the original, enhancing rather than diminishing its cultural significance. The mask's widespread reproduction seemed to imbue it with a collective aura, one that was shaped by its circulation and the myriad interpretations it inspired. This suggests that aura is not necessarily lost but transformed as objects move through different material states and cultural contexts, including digital ones (Jeffrey, 2021; Tran & Davies, 2023). This more fluid understanding of aura allows for new forms of authenticity and value to emerge through reproduction and circulation.

Lessons from Mechanical Virality

The case of *L'Inconnue de la Seine* offers insights into the nature of virality and its intricate entanglement with media technologies. By examining this 19th-century phenomenon through contemporary theoretical lenses, we can challenge prevailing narratives about the novelty of digital spread and uncover deep-seated cultural dynamics that persist in modern media practices.

Expanding Virality: The dynamics of virality-rapid dissemination, cultural resonance, and iterative reinterpretation-are not exclusive to the digital age. The case of *L'Inconnue de la Seine* illustrates how these processes have long shaped media circulation, challenging the prevailing narrative that digital virality represents a radical departure from the past. By tracing the widespread dissemination of *L'Inconnue's* image through plaster casting, we uncover the technological and cultural factors that facilitate viral spread across different historical contexts. This expanded understanding of virality urges us to reconsider contemporary viral phenomena as evolutionary developments of long-established cultural practices rather than unprecedented ruptures in the media landscape. The parallels between the mechanical reproduction of *L'Inconnue* and the digital circulation of memes reveal the deep-seated human impulses and cultural dynamics that have driven virality throughout history.

The case of *L'Inconnue* also complicates both Walter Benjamin's notion of *aura* and responses to it, like Geismar's concept of "fluid aura." While Benjamin posited that mechanical reproduction diminishes an artwork's authenticity and aura, the widespread reproduction of *L'Inconnue* suggests a paradox: instead of diminishing the mask's cultural resonance, reproduction seemed to enhance it. Likewise, *L'Inconnue*'s case demonstrates that fluidity and transformation of aura can occur even outside the digital realm, as her mechanical reproductions accrued new layers of meaning and cultural significance. Thus, *L'Inconnue* challenges both the loss of aura in mechanical reproduction and the idea that digital objects uniquely embody fluid, transformative aura.

Technologically Reproducing Gender: The phenomenon of *L'Inconnue de la Seine* and contemporary deepfake technologies exemplify a continuum of mechanical virality

intersecting with gendered power structures. This intersection reveals how technological reproduction has consistently been leveraged to objectify and commodify women's bodies. The parallels between the necrophiliac fascination with *L'Inconnue* and the non-consensual manipulation of images in deepfakes illuminate the persistent interplay between technological affordances and entrenched gender hierarchies.

Romanska's (2005) concept of "NecrOphelia" provides a critical framework for understanding this continuity. This cultural tradition, which aestheticizes and eroticizes the female corpse, finds expression in both the 19th-century proliferation of *L'Inconnue's* death mask and the digital manipulation of women's images in deepfakes. The mechanical virality of these phenomena demonstrates how advancements in reproduction technologies often amplify and disseminate gendered objectification.

Wagner and Blewer's (2019) analysis of deepfake pornography as "a reification of women's bodies as a thing to be visually consumed, here completely circumventing any potential for consent or agency" (p. 33) resonates with the historical treatment of *L'Inconnue*. The mask-like quality of both phenomena is striking, with the 19th-century plaster death mask finding an unsettling digital counterpart in deepfake pornographic images created by superimposing faces. The viral spread of women's images, faces dislocated from bodies and lives, devoid of consent or agency, is facilitated by technological means. This virality, mechanical or digital, operates within a broader cultural framework that fetishizes the passive, manipulable female form, revealing a continuity in societal attitudes toward women's bodies.

The case study of *L'Inconnue de la Seine* and its lessons about mechanical virality yield three critical insights. First, it expands our understanding of virality beyond the digital realm, demonstrating that the rapid, widespread dissemination of images and ideas has deep historical roots in mechanical reproduction. Second, it explores the fluidity of "aura" in mechanical and digital reproduction. Finally, it reveals the persistent intersection of technological reproduction with gendered power structures, exemplified by the continuum from L'Inconnue's death mask to contemporary deepfake technologies. These lessons compel us to view current digital phenomena as part of a longer historical trajectory, offering a more nuanced framework for analyzing how media technologies shape cultural circulation and gender representation.

Anatomy Museums and Necro-Technological Recursion

In the 19th century, anatomy museums emerged as spaces where scientific inquiry, public curiosity, and cultural fascinations with death converged. These institutions exemplify the concept of what this article terms "necro-technological recursion," the process by which death-related technologies are reconfigured to appear life-serving, often positioned as advancing education or scientific knowledge. While these transformations are presented as beneficial, they can obscure deeper ethical concerns and reinforce social inequalities. Historical examples of necro-technological recursion, like anatomical displays and models in the 19th century museums discussed in this section, prefigure technologies like griefbots, which claim to use the digital remains of the dead to offer beneficial psychological support for the living.

By transforming dead bodies into objects for both study and entertainment, anatomy museums were sites of medical science but sites that reinforced existing social hierarchies and cultural norms. This section explores how anatomy museums, while ostensibly life-affirming in their purpose, contributed to the commodification of death and the perpetuation of societal control over marginalized bodies.

Anatomy museums arose during a period of intense public interest in the human body, driven by scientific advancements in medicine and anatomy. Public fascination with death, combined with Enlightenment ideals of empirical knowledge, created fertile ground for these institutions. The opening of Signor Sarti's Florentine Anatomical Gallery in London in 1839 marked the first public anatomy museum, with several others quickly following suit, such as Doctor Joseph Kahn's Anatomical and Pathological Museum and Dr. Linn's Museum of Anatomy (Bates, 2006). Anatomy museums like Doctor Kahn's attracted substantial crowds, perhaps as many as 2,000 people a day (Bates, 2006).

Initially, these museums were modeled after medical school anatomy courses, which had been largely inaccessible to the public. By making anatomical knowledge available to the broader public, these museums democratized medical knowledge (Burmeister, 2000). In their advertisements, museums emphasized the pedagogical nature of the exhibits. An

1839 ad in the *London Standard* encouraged visitors wishing to learn more about anatomy but "who have not nerve enough, or opportunities enough, to witness dissections, or examine portions of the actual frame of man" (Bates, 2016, p. 189).   While their pedagogical value was emphasized, their appeal often lay in the spectacle of confronting death in a socially sanctioned, scientific setting (Stephens, 2011). Anatomy museums capitalized on this intersection of public curiosity, scientific inquiry, and the commodification of the human body, transforming dead bodies into artifacts for an eager audience.

The Anatomical Venus

Anatomy museums displayed human skeletons, preserved organs, wax models, and pathology exhibits (Sappol, 2004). The Anatomical Venus, a life-sized wax model of a reclining woman whose body could be dissected layer by layer, was a popular attraction in museums like Doctor Kahn's (Ballestriero, 2010). Originally crafted for medical education in obstetrics and gynecology, figures like the Venus were anatomically accurate, modeled from the close study and castings of hundreds of dissected cadavers (Hopwood, 2007; Stephens, 2011; Burmeister, 2000). They were impressively detailed: colored wax mimicked flesh, and the lifelike effect was enhanced by glass eyes and real human hair. One model demonstrated the circulatory system by pumping red wine through glass veins (Ebenstein, 2013).

The anatomical Venus displayed at Doctor Kahn's museum exemplified the complex interplay between scientific accuracy and artistic representation in 19th-century anatomical models. The medical journal *The Scalpel* lauded this particular figure as "better than nature" (Bates, 2008, p. 9). Kahn's Venus was meticulously crafted to evoke both scientific interest and aesthetic appeal. The figure was positioned reclining on an ornate bed. Attention to detail was evident in her cascading hair and pearl necklace, elements that served to humanize the anatomical model.

The facial expression of the Venus was particularly noteworthy, with half-closed eyes and a mouth either slightly open or gently smiling. This ambiguous expression was described by one observer as "somewhere between agony and ecstasy" (Ballestriero,

2010, p. 231). Scholars have interpreted this facial expression in various ways, reflecting the cultural context of Victorian England. Some viewed it as erotic, others as indicative of religious ecstasy, while still others saw it as embodying the Eros/Thanatos dichotomy popular in 19th-century thought (Jordanova, 1993; Stephens, 2011; Ballestriero, 2010; Ebenstein, 2013). These diverse interpretations underscore the polyvalent significance of the anatomical Venus as both a scientific tool and a cultural artifact.

At Kahn's Museum, every hour, a demonstrator disassembled the Venus' forty-nine cleverly interlocking sections-bones, muscles, and organs nested together like puzzle pieces-to expose ever-deeper anatomical structures. The Venus' dissection climaxed with the exposure of a fetus in the womb, reinforcing not only scientific knowledge but also societal ideas about the centrality of reproduction for women's bodies and lives (Jordanova, 1993).

On Necro-Technological Recursion

Necro-technological recursion, defined as the process by which death-related technologies are reconfigured to appear life-serving was a defining feature of anatomy museums. These institutions transformed death into an educational and entertainment spectacle, claiming to serve the living by providing scientific insight while simultaneously reinforcing social control. The preserved remains and anatomical models displayed in these museums acted as "agents" within broader networks of knowledge production, influencing public perceptions of death, the human body, and social hierarchies (Latour, 2005).

Through this process, death-related technologies in anatomy museums were not neutral; they served to reinforce existing power structures by presenting the bodies of marginalized individuals as objects of study. As O'Donovan (2021) notes, the exhibits in anatomy museums reflected and perpetuated broader societal structures of power and control. The dead were repurposed not only for educational purposes but also to maintain and legitimize the dominance of certain racialized, gendered, and able-bodied norms.

Anatomy museums played a crucial role in constructing and perpetuating social categories. These institutions presented pseudoscientific exhibits that purported to demonstrate biological differences between racial groups, reinforcing colonialist and racist ideologies under the guise of science (Sappol, 2004; Stephens, 2011). The objectification of women's bodies in these displays reflected and perpetuated gender norms. Additionally, these museums often reinforced ableist norms, contributing to the othering of disabled bodies and further entrenching societal exclusions (Bates, 2008).

The creation of the Anatomical Venus exemplifies the ethical concerns surrounding the exploitation of marginalized individuals in 19th-century medical science. This anatomical model was not a product of imagination but an assemblage derived from measurements and casts of hundreds of women, both living and deceased (Ebenstein, 2013). The sourcing of these bodies for anatomical displays predominantly targeted vulnerable populations, including the impoverished, incarcerated, institutionalized, and colonized individuals (Sappol, 2004). These marginalized groups often lacked the social and legal protections necessary to prevent the exploitation of their bodies, both in life and after death.

A salient example of this exploitation is evident in the production of wax moulages depicting diseases such as syphilis. These moulages were cast directly from the bodies of affected individuals, a process that not only objectified their pathological conditions but also effectively depersonalized their experiences, reducing them to anonymous medical specimens (O'Donovan, 2021). This practice exemplifies the broader tendency in 19th-century medical science to prioritize the acquisition of scientific knowledge over considerations of individual dignity and informed consent, particularly when dealing with socially marginalized groups.

These historical practices illuminate critical ethical issues concerning consent, bodily autonomy, and the ethics of medical representation. Such considerations continue to inform contemporary debates surrounding medical ethics and the utilization of human remains in scientific research and education.

AI technologies have been critically examined for their role in perpetuating and reinforcing social categories in ways reminiscent of 19th-century anatomy museums. Just as the Anatomical Venus purported to reveal 'natural' truths about women's bodies, AI

systems frequently reinforce gender stereotypes, such as associating women with domestic roles and men with leadership positions in large language models and recommendation systems (Kotek et al., 2023). AI technologies often exclude or marginalize disabled individuals by designing systems based on normative assumptions about bodies and abilities, failing to account for diverse embodied experiences and needs (Hamraie & Fritsch, 2019).

These patterns of exploitation and marginalization extend to data collection and labor practices. Biometric data from incarcerated people and refugees are often used in facial recognition systems without proper consent (Meyer & Berthélémy, 2024; Ozkul, 2023), while opaque and biased datasets in predictive policing algorithms perpetuate racial profiling (Angwin et al., 2022; Benjamin, 2019). The phenomenon of "ghost labor," wherein low-wage workers from marginalized communities are tasked with moderating harmful content, exemplifies the hidden exploitation underpinning many AI systems (Gray & Suri, 2019). These modern technological practices, like their historical counterparts, legitimize discriminatory categorizations through perceived neutrality and authority.

By critically examining the role of historical institutions such as anatomy museums in shaping societal norms regarding race, gender, and ability, we can gain deeper insights into the ethical implications of repurposing death for the benefit of the living in the digital age. This historical perspective enables a more nuanced understanding of the ongoing ethical challenges posed by emerging technologies and their potential to perpetuate or exacerbate existing social inequalities.

Morgue, Mask, and Museum

The historical examples of the Paris Morgue, *L'Inconnue de la Seine,* and anatomy museums reveal enduring continuities in how technology has mediated, commodified, and shaped societal experiences of death. Through the lenses of spectacle gaze, mechanical virality, and necro-technological recursion, we observe that these institutions did more than simply display death-they embedded it within broader societal and

technological structures, prefiguring the ethical dilemmas surrounding contemporary AI death technologies.

The frameworks applied in this analysis-spectacle gaze, mechanical virality, and necro-technological recursion-are deeply intertwined, demonstrating the complex interplay between public fascination with death, the spread of death-related imagery, and the repurposing of the dead for societal purposes. While each historical example may primarily exemplify one framework, they all engage with aspects of all three.

The Paris Morgue, while primarily embodying the spectacle gaze, also exhibited elements of mechanical virality and necro-technological recursion. The public display of bodies behind glass windows created a spectacle of death, but this spectacle was further amplified through mechanical virality as images and narratives of the displayed bodies circulated widely through newspapers and literature (Sappol, 2004). The morgue also engaged in necro-technological recursion by repurposing the dead for civic purposes, such as identification and forensic study, transforming death into a tool for social order and scientific advancement (Bertherat, 2002).

L'Inconnue de la Seine, explored here as an example of mechanical virality due to the widespread reproduction of her death mask, also exemplifies the other two frameworks. Her serene expression became a spectacle in itself, drawing viewers into a voyeuristic gaze that blurred the lines between art and death (Bronfen, 1992). She also presents a compelling study of necro-technological recursion. In 1960, *L'Inconnue* story took a surprising turn when Asmund Laerdal, a Norwegian toy maker, chose *L'Inconnue's* face, which he had seen as a plaster cast in his grandparents' home, as the model for "Resusci Anne," the first CPR mannequin (Saliot 2015). Thus, the death mask of *L'Inconnue's* was repurposed into a tool for teaching life-saving techniques.

Anatomy museums, while primarily sites of necro-technological recursion in their use of cadavers and body parts for education, also heavily engaged with the spectacle gaze and mechanical virality. The public display of anatomical specimens, particularly the Anatomical Venus, created a spectacle that drew large crowds (Bates, 2006). These museums also participated in mechanical virality through the reproduction and distribution of anatomical models and illustrations, spreading medical knowledge beyond the confines of professional circles (Hopwood, 2007).

These interwoven frameworks underscore how technologies of death have always operated within a matrix of public fascination, societal control, and the commodification of mortality. By recognizing the overlap and interaction between these frameworks in historical examples, we gain a more nuanced understanding of how societies have engaged with death through technology, providing valuable context for analyzing contemporary AI death technologies.

IV. Conclusion: Spectacle, Virality, Recursion, and the Afterlife of AI

This article has traced how contemporary AI death technologies, such as deepfakes and griefbots, are not unprecedented phenomena but rather the latest manifestations in a long history of technological mediation, commodification, and control of death and mourning. By analyzing the Paris Morgue, *L'Inconnue de la Seine*, and anatomy museums through the lenses of spectacle gaze, mechanical virality, and necro-technological recursion, we have explored enduring patterns in societal engagement with mortality.

The historical continuities uncovered in this analysis offer crucial insights into contemporary debates surrounding AI ethics and death technologies. The spectacle gaze, once embodied in the public fascination with the Paris Morgue, finds its digital counterpart in the voyeuristic allure of deepfakes. Mechanical virality, exemplified by the spread of *L'Inconnue de la Seine's* image, presaged today's rapid dissemination of digital content. Necro-technological recursion, seen in the repurposing of bodies in anatomy museums, is mirrored in the creation of griefbots that repurpose digital traces of the deceased in the name of offering psychological aid to the living.

These historical parallels reveal that many of the ethical challenges we face today-issues of consent, posthumous privacy, and the commodification of grief-have deep historical roots. The exploitation of marginalized bodies in historical practices finds troubling parallels in the disproportionate impact of AI technologies on vulnerable populations. The gendered dynamics evident in the objectification of women's bodies, from anatomy

museums to *L'Inconnue de la Seine*, persist in the gendered nature of deepfake technologies.

While emphasizing these continuities, it is crucial to acknowledge the unique affordances of contemporary AI death technologies. Griefbots and deepfakes offer forms of engagement with death that extend beyond what was possible in previous eras. Unlike static representations like death masks or anatomical models, these AI-driven technologies introduce dynamic, interactive, and potentially evolving digital afterlives.

Griefbots, in particular, represent a significant departure from historical practices of memorialization. These AI-powered chatbots are not merely static repositories of information about the deceased, but adaptive systems, learning from interactions and changing over time (Jiménez-Alonso and Brescó de Luna, 2023). This capacity for ongoing evolution presents novel ethical challenges, as the digital representation of the deceased may diverge significantly from their lived personality over time.

Deepfakes similarly offer unprecedented capabilities in creating and manipulating posthumous representations. Unlike historical forms of portraiture or even photography, deepfakes can generate new, realistic content featuring the deceased in scenarios they never experienced in life. This technology blurs the boundaries between memory and fiction, raising complex questions about the nature of identity and the ethics of posthumous representation that go beyond historical precedents.

These technologies' capacity to create increasingly realistic and interactive digital afterlives introduces new dimensions to long-standing debates about death, memory, and identity. These AI-mediated interactions with the dead may fundamentally alter our understanding of the relationship between the dead and the living, potentially reshaping cultural practices of mourning and remembrance (Krueger and Osler, 2022). The unprecedented nature of these technologies necessitates careful consideration of their psychological, social, and ethical implications, even as we recognize their historical antecedents.

The necropolitical dimensions of AI death technologies extend the reach of biopolitical power beyond the threshold of life. Drawing on Mbembe's (2003) concept of necropower, we see how the creation and manipulation of digital representations of the

deceased constitute a form of posthumous governance. This governance of digital afterlives becomes a critical site for negotiating power relations, not only among the living but also between the living and the dead. The ability to control, shape, and disseminate narratives of the dead through AI-mediated representations raises profound questions about who holds the power to shape collective memory and the legacy of the deceased.

Moreover, the environmental impact of AI death technologies adds another layer to these necropolitical considerations. The intensive energy demands of AI systems, especially the computational power required for deepfakes and griefbots, introduce a new dimension of environmental harm. Crucially, the promise of digital immortality implies an ongoing, potentially eternal demand for energy and water resources. The computing infrastructure required to maintain these digital afterlives-running simulations, storing vast amounts of data, and facilitating interactions-necessitates continuous power and cooling. This perpetual consumption stands in stark contrast to traditional forms of memorialization and presents a profound environmental challenge. The ecological cost of digital immortality, likely to be borne disproportionately by the most vulnerable populations globally, further complicates the ethical landscape of digital afterlives. It underscores the far-reaching implications of these technologies, forcing us to confront the unsustainable nature of our attempts to technologically transcend death.

Central to understanding the dynamics of digital death technologies is Verdery's (1999) concept of enchantment, as articulated in her seminal work *The Political Lives of Dead Bodies*. Verdery introduces enchantment as a force that imbues dead bodies with symbolic significance, transforming them into potent political symbols. In the context of AI death technologies, we can extend this concept to understand how digital dead bodies-AI-driven representations of the deceased-become similarly enchanted, acquiring a symbolic power that transcends their digital nature.

Enchantment, in Verdery's framework, refers to the non-rational, emotional, and often sacred qualities attributed to the dead. It encompasses the meanings, narratives, and cultural significance that surround deceased individuals and their representations. When applied to AI death technologies, enchantment helps us understand why these digital

artifacts hold such profound sway over individuals and societies, often eliciting strong emotional responses and shaping collective imagination and cultural memory.

The "spectacle gaze," "mechanical virality," and "necro-technological recursion" identified in this article can be understood as manifestations of this enchantment that bridge both the material dead body and its digital counterparts. The spectacle gaze transforms digital representations of the deceased into objects of public fascination and voyeurism, commodifying the dead and reinforcing power structures. Mechanical virality ensures the rapid, widespread dissemination of these enchanted images, embedding them in cultural consciousness and amplifying their symbolic power. Necro-technological recursion repurposes the dead for societal ends, often reinforcing social inequalities, all while obscuring the violence and exploitation of their origins.

These enchantments reveal how AI technologies perpetuate historical patterns of control and commodification of the dead, raising critical questions about consent, dignity, and the exploitation of marginalized bodies. By recognizing these enchantments as central rather than peripheral to AI's engagement with death, we can more effectively grapple with the profound ethical challenges these technologies pose.

As AI continues to reshape our relationship with mortality, it is crucial to remain mindful of these enchantments and the historical continuities that have shaped current practices. The lessons of the past reveal that death technologies have always been intertwined with societal power structures, and addressing the ethical challenges posed by AI death technologies will require grappling with these enduring dynamics. Simultaneously, we must remain attentive to the novel aspects of these technologies, particularly their adaptive nature and environmental impacts, which introduce new and pressing ethical considerations. By situating AI death technologies within this broader historical and contemporary context, we can develop more nuanced, ethically grounded approaches to their development and use, ensuring that our engagement with mortality in the digital age respects human dignity, promotes equity, and considers long-term sustainability.

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Footnotes

1 : I'm grateful to Livia Garofalo for this insight.↩