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Digital Replacement of the Dead: A Legitimate Worry?

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Abstract

Digital “resurrection” of the dead has become more of a reality in the last few years due to the rapid advancement of machine learning and large language models. So-called “interactive personality constructs of the dead” (IPCDs) are AI either trained on decedents’ “digital remains” (e.g. emails, texts, and social media content) after the fact or intentionally developed in cooperation with future decedents pre-mortem to simulate the way they would have interacted with others via some combination of text, video, and audio modalities. While some literature on IPCDs speculates about beneficial uses of this technology, much of it raises the alarm about its possible dangers. For example, some scholars wonder if a tool like this could be used to help people navigate grief, but many also worry it might make grieving worse. Beyond the realm of mere grieving, two significant concerns about IPCDs found in the literature involve the potential for commercial abuses and disrespectful treatment of the dead. The latter will be the focus of the present paper. More specifically, I want to talk about the problem of replacement, which suggests that, to a greater degree than older technologies aimed primarily at aiding remembrance of deceased loved ones, IPCDs seem to make possible, or even likely, an ethically troubling replacement of the deceased in people’s lives. Whether or not this is true has become a matter of recent debate, and this paper argues replacement is indeed a danger that should be taken seriously when developing and using this new technology.

Keywords Grief · IPCD · Joel Krueger and Lucy Osler · Nora Freya Lindemann · Patrick Stokes

The notion of digitally “resurrecting” the dead has received a great deal of scholarly (and pop-cultural) attention in the last few years due to the rapid advancement of machine learning and large language models (LLMs). The so-called “avatars of the dead” (Yang, 2024) or “interactive personality constructs of the dead” (IPCDs) are AI either trained on decedents’ “digital remains” (e.g. emails, social media profiles,

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text messages, and voice notes) after the fact or intentionally developed in cooperation with future decedents pre-mortem to simulate the way they would have interacted with others via some combination of text, video, and audio modalities.¹ While some of the emerging literature on IPCDs speculates about beneficial uses of this technology, much of it is dedicated to raising the alarm about its possible dangers. For example, many scholars wonder if a tool like this could be used in limited fashion to help people navigate grief, but a lot of them also worry it might make grieving worse (see e.g. Elder, 2020; Krueger & Osler, 2022; Lindemann, 2022b; Xygkou et al., 2023). Beyond the realm of mere grieving, two of the main concerns about IPCDs found in the literature involve “the potential exploitation of the deceased for mercantile gains...and a lack of reverence towards the deceased” (Bao & Zeng, 2024: 2). The former is most prominently discussed by Carl Öhman and Luciano Floridi (2017; 2018), while the latter, or something like it, will be the focus of the present paper. More specifically, I want to talk about the “replacement problem” (Fabry & Alfano, 2024: 766), which suggests that, to a greater degree than older technologies aimed primarily at aiding remembrance of our deceased loved ones, IPCDs seem to make possible, or even likely, an ethically troubling replacement of the deceased in people’s lives. Whether or not this is true has become a matter of growing debate, and this paper will argue that replacement is indeed a danger that should be taken seriously when making and using this new technology. In order to reach that conclusion, it will first be necessary to take a closer look at what replacement entails in this context and what might be wrong with it.

1 Recollection vs. Replacement

The two main worriers about the dangers of replacement, thus far, are Patrick Stokes and myself. In an early consideration of the pros and cons of IPCDs, I introduce a distinction between two ways of preserving something of our loved ones—recollection and replacement—after they die: “The former aims to keep us aware of what has been taken from us—it is thus in part an attempt at preservation of an irremediable void; but the latter seeks to overcome, ignore, or at least mitigate the fact that anything has been lost at all—it is an attempt at preservation of the status quo” (Buben, 2015: 20–1). It may well be the case that these two forms of preservation are not mutually exclusive and that they do in fact sometimes overlap, including in instances involving the use of technology, but I wonder if using IPCDs might, at least in some cases, involve an “intensified aspect of longing for replacement” (Buben, 2015: 21). Before looking at IPCDs specifically, it is important to ask: why does it matter if we attempt to replace the dead?

¹ Other popular terms for this technology include “chatbots of the dead” (Elder 2020), “deathbots” (Bao & Zeng 2024), “thanabots” (Henrickson 2023), “griefbots” (Jiménez-Alonso & Brescó de Luna 2023), and “deadbots” (Hollanek & Nowaczyk-Basińska 2024), just to name a few. In other work (Buben 2025), I argue that these terms each have significant shortcomings that can be avoided by opting for “IPCDs” instead.

As odd as it might sound in the abstract that we can have duties to people who no longer exist (assuming there is no afterlife and avoiding, for present purposes, controversial metaphysical claims about how relevant technologies might extend personhood in some limited way²), it seems relatively uncontroversial that many of us do indeed believe there are such duties or at least behave in ways that suggest we do. Here is one of my earlier examples: “although remarriage after the death of a spouse is now commonplace..., it is still often considered distasteful to reenter the dating pool too soon after the death....there is a common rejection in such a situation of what appears to be an eagerness to replace, and a corresponding undervaluing of, the deceased” (Buben, 2015: 22). Whereas commemorative practices and remembrance or recollection strategies seem to focus on the dead themselves and what kind of people they were (which does admittedly include what they did for others in their lives), the focus in an example like this seems to be primarily on the needs and desires of the still living. It is not as though these needs and desires (e.g. for companionship and sex) are irrelevant, but we have moral sentiments suggesting that they should not be met at the expense of honoring certain responsibilities we have to value the dead themselves. Because replacement “is more about filling a role in someone’s life, which has been vacated due to a death, with something else capable of playing the part” (Buben, 2015: 25), it is less oriented toward honoring those responsibilities than recollection or commemoration. Bringing the discussion back to technology, the orientation of one’s relationship to the deceased in the use of certain devices determines whether the use is problematic (more in the direction of replacement) or not (more along the lines of recollection).

Relying on a Heideggerian framework that calls out the modern technological tendency to interpret the world and everything in it as mere resources to be extracted and deployed according to our needs and desires (cf. Heidegger, 1977), I argue that IPCDs might make it easier to do the same with the dead in the service of replacement. Whereas older technologies, from letters and photographs to memorialized social media profiles and voicemails, facilitate recollection of the dead to a greater or lesser degree, the development of increasingly sophisticated interaction, as displayed by IPCDs, offers somewhat novel possibilities. On the more sinister side, this development might be understood as “taking what can be extracted from the dying before they are gone and using this material as just such a gap/role-filling resource once the dying is finished” (Buben, 2015: 25–6). That is, at least some possible uses of IPCDs seem to be less about preserving and valuing

² For recent discussion of IPCDs and the extension of personhood, see Iglesias et al. (2025) and Karpus & Strasser (2025). Although fascinating, this discussion has little bearing on the present paper. Concerns about replacement hold regardless of whether an IPCD can be seen as continuing someone’s personhood in some limited way (IPCDs seem incapable of doing so in every way; in case this point is not obvious, I will briefly say more below). Replacing deceased people in certain roles or functions with impoverished digital versions of them generates the same worries as replacing them with (their) reanimated digital remains to which we attribute no personhood whatsoever. If replacement is a problem, it is more a problem in the way the living relate to the dead than in the dead’s ontological status.

the dead themselves than about giving survivors less to miss when it comes to things like camaraderie, advice, and other goods the now-deceased used to bring into our lives.³ To be sure, IPCDs cannot replace everything that goes missing when someone dies but having them “play pre-ordered roles in our lives (e.g. the role of one who would have been proud of my accomplishments or disappointed in my behavior)” might still diminish the loss we feel (Buben, 2015: 28). And perhaps feeling this loss is an important component of how we honor our responsibility to value the dead themselves. Obviously, what this valuing (or respecting or loving, as seen below) consists of will vary across cultures and eras, but it seems unproblematic in most cases to suggest it should not just be about making the living feel better.

Stokes (2021: 142–3) largely agrees with me but adds another, older history of philosophy touchstone to lend support to the argument: “The ethical point here is roughly a Kantian one: we wrong the dead when we treat them as a means to our own ends instead of ends in themselves.” The danger of replacement lies in exploiting or instrumentalizing the dead for our own purposes rather than treating them as worthy of genuine respect and love.⁴ But this is not the only problem with replacement, according to Stokes; the notion of replacing dead people with IPCDs suggests they were not that significant to us even while they were still alive (cf. Buben, 2015: 29). As he puts it,

To assume that an AI avatar can take up where a dead person left off in fulfilling certain functions in my life is to treat the person we’re mourning as if they were a fungible good all along, something we could have swapped out for a replacement without too much loss....It implies you don’t love *this* person but whoever or whatever turns up to fulfil certain roles they play in your life (Stokes, 2021: 143–4). Part of valuing or loving specific people is recognizing their uniqueness as individuals, but this recognition is precisely what the movement toward replacement works against (put positively, it works toward seeing people as functionally interchangeable). And if movement away from this recognition is an accurate way to describe how IPCD use might affect our relationships with dead people, then maybe we have reason to be concerned about how IPCD use might affect the way we relate to living

³ Here is Stokes’ (2021: 144) “perhaps ill-advised analogy: if a memorialized online profile is like a taxidermied pet, an avatar of the dead is like buying a new pet of the same breed and giving it the same name as the old one.” For a real-life example of precisely this sort of pet-related camaraderie-replacing behavior, see Buben (2022: 81n8; cf. 2015: 21n9).

⁴ Without addressing the issue of replacement specifically, Öhman and Floridi rely on a Marxian account (assuring nineteenth century philosophy is also represented) of alienation and instrumentalization of humans for economic gain to raise related concerns about how the digital dead might be treated. Instead of focusing on respect and love, however, they put their concerns in terms of dignity, which involves remaining “the master of one’s existence, of one’s own ‘journey’ through the world” (Öhman & Floridi 2017: 650). Since I am not sure the dead have the requisite “control” over their destinies to warrant applying this notion of dignity to them, and Stokes and I (in my earlier work) do not rely on it, I will not adopt it here.

people too. Maybe this advancing technology will lead to a greater sense of people in general as mere replaceable functions.⁵

Although Stokes, whose book on the digital dead is a few years old now, is not certain current IPCD use has taken a clear turn in the direction of function replacement (i.e. treating dead people as replaceable functions) yet, he shares my worries that we are headed that way. He states, “these technologies so far have been focused on remembrance and assisting in mourning, not offering a substitute for those that have been lost...But recall how quickly we adapt to technology...Could we really slip into a way of engaging with avatars that treats them as replacements for the dead? It might be better to ask, what’s to stop us?” (Stokes, 2021: 144–5). A few years further on, I think both the evidence and the answers to these questions have become clearer (and I will provide several corroborating examples before concluding this paper), but not everyone agrees that replacement is a legitimate concern about this technology. In order to explain why the nay-sayers are mistaken, it will be necessary to understand the reasons for their doubts.

2 No Need to Worry

Against the two main worriers stand two main doubts about the dangers of replacement: “Regarding the concerns raised by Buben and Stokes, there are primarily two objections present in the current discourse, namely those of Lindemann and of Krueger and Osler” (Bao & Zeng, 2024: 3). Nora Freya Lindemann (2022a: 45–6) attributes to me the position that IPCDs (among other technologies) should not be used or even exist because they inevitably lead to an ethically questionable replacement of the dead. “His argumentation,” according to Lindemann (2022a: 47), is “that technological advancements change death preservation practices from recollection to replacement...His resulting conclusion is that technological advancements that concern death practices, ways of remembering and preservation are bad.” Whether or not this is a completely accurate or charitable account of what I am up to, the more pressing issue is what Lindemann makes of the notion of replacement itself.

“In Buben’s understanding,” she thinks, an IPCD “really becomes the deceased for the bereaved,” which is something she does not find “plausible” (Lindemann, 2022a: 47). How could an IPCD ever lead her to make the mistake of forgetting that her mother has died? However convincing an IPCD might be, would there not still be some awareness that the real thing is absent? Lindemann (2022a: 49) attributes a similarly implausible sense of replacement to Stokes, who allegedly

⁵ Interestingly, in a recent paper on “personalised digital duplicates,” John Danaher and Sven Nyholm (2024a) make several of the same points (e.g. about Kant and instrumentalization and about love and uniqueness) seemingly without awareness of Stokes’ prior treatment. Most importantly, they consider the similar problem that creating and interacting with digital duplicates of real people (including IPCDs, although postmortem use is not their focus) might diminish their “instrumental scarcity” and, perhaps thereby, alter the value we attribute to them. However, Danaher and Nyholm do not place so much emphasis on the potential negative impact on the way we value and relate to others.

“argues that there is a danger” an IPCD could be “mistaken to be the actual person. We may lose the awareness that it is only an image.” For someone to be so thoroughly and convincingly replaced in the minds of survivors that they cease to be aware this person has in fact died is what Lindemann (2022a: 50) calls being “(fully) replaced,” and this is what she sees as the core worry of both myself and Stokes. Because full replacement of a formerly living person by an IPCD seems so unlikely to her, Lindemann (2022b: 2) dismisses our worry as “not fully convincing.”

Turning to the other skeptical argument about the dangers of replacement, Joel Krueger and Lucy Osler offer a more nuanced account of the concerns I share with Stokes. Like Lindemann, they begin their account by suggesting both of us worriers see a kind of necessity or inevitability in the connection between IPCDs and replacement (Krueger & Osler, 2022: 241). However, they are not so dismissive of what we are saying: “Replacement worries touch on several important concerns.... As this technology becomes more sophisticated and widely adopted, it will need to be part of ongoing conversations” (Krueger & Osler, 2022: 243). In fact, Krueger and Osler even suggest an additional worry about the possible repercussions of using IPCDs to replace the dead. Relying on recent philosophical work on grief (e.g. Cholbi, 2020; Kagan, 2014), they claim we humans depend in large part on others for our self-understanding, commitments, and values, and losing those closest to us provides an opportunity (through grieving) to develop new ways, free of some of that dependence, to understand ourselves and our place in the world. If we use IPCDs to mitigate that loss through replacement of the dead, and thereby short-circuit grieving, we are depriving ourselves of important opportunities for personal growth and development. We would obviously not wish death on anyone or hardship upon ourselves, but once the death has happened, we should not deprive ourselves of such opportunities.

Having acknowledged all the reasons to worry about replacement, Krueger and Osler (2022: 243) still have some reservations; they just do not think such worries are very “urgent.” Focusing on the way IPCDs have been, and are likely to be, used in the context of grieving, Krueger and Osler offer two reasons why replacement, though bad if it happens, probably will not be happening anytime soon. The first is that the reciprocity involved in the interaction with IPCDs is “thin,” that there is an asymmetry to it understood by those who engage with IPCDs (Krueger & Osler, 2022: 244). While the living IPCD user has a robust life external to the interaction that it can share with the IPCD, the same cannot be said of the IPCD itself, “And crucially, *we know this*.... We bring them into our world in a way they cannot bring us into theirs” (Krueger & Osler, 2022: 245). Awareness of the thin reciprocity afforded by IPCDs is, according to Krueger and Osler, what prevents using them to replace the dead or “mask the loss of the other.”

The second reason why replacement is not such a pressing concern for Krueger and Osler (2022: 246) is that people using IPCDs in the grieving process seem to adopt a fictional as-if-it-is-a-specific-person/agent approach to the interaction, which precludes replacement because the users know they are engaging in some

“make-believe.”⁶ As a matter of fact, this is not even an entirely new way of relating to the dead. It seems to be fairly common for the bereaved to engage in this sort of imagined conversation with their departed loved ones without the aid of technology (cf. Norlock, 2017: 345); some people (me included) even do it with still-living loved ones who are just not around at a particular moment. In most cases, such behavior is not met with worries about replacing the dead or impeding healthy self-development, so it is not immediately apparent why IPCD use should generate them. Bringing their points about the relative normalcy of fictionalist approaches and general awareness of thin reciprocity together, Krueger and Osler (2022: 247) conclude that users of IPCDs may simply not need or want more out of these grieving tools: “rather than desiring replacement, thin reciprocity may...be precisely what users want from chatbots in the context of their grief work. Chatbots furnish dynamic interactive possibilities that makes them better suited for adopting a fictionalist stance and constructing richer continuing bonds than things like gravesites or photographs.” If it is true that IPCD users are neither currently trying, nor likely to try, to replace the dead, then perhaps Stokes and I have overstated the danger. However, a closer look at our prognostications suggests the danger we actually emphasize remains worthy of concern.

3 Where the Doubters Go Wrong

What needs to happen next is a laying out of several relevant mistakes made by those who doubt the seriousness of replacement worries. Correcting these mistakes will contribute to a better understanding of the replacement problem and a greater sense of how pressing it is. The first thing to point out in response to the doubters is that genuinely forgetting the dead are dead is not the real, or at least not the main, replacement worry about IPCDs. Lindemann’s skeptical argument about this so-called “full replacement” is something of a straw man that badly misses what I, in particular, have said. At no point have I suggested that this technology will make anyone simply lose awareness of the fact someone has died, or that an IPCD “really becomes the deceased for the bereaved.” We do not actually need to think an IPCD is a specific person/agent in order for replacement to be a problem. As explained above, replacement, on my view, is not just getting confused about what is real and what is not; it is about using digital remnants of the dead (whether cynically and intentionally, or just thoughtlessly) as mere gap- or role-filling instruments or resources to cover over (at least in part) what goes missing in our lives when someone dies. Because Lindemann’s worry-diminishing argument about replacement is premised on a fundamental misunderstanding of the replacement problem, it does little to diminish any worries.

⁶ Krueger and Osler (2022: 246) borrow this sense of “fictionalism” from the problem of “other minds” context, although they only endorse it when it comes to interacting with “artificial systems, including” IPCDs.

Admittedly, Stokes goes a bit further in considering how future developments might lead to confusion about what is real, and he makes some excellent points about this possibility, but his primary focus in discussing replacement is roughly the same as mine. That is, Stokes (cf. 2021: 160) thinks the danger of replacement lies in exploiting or instrumentalizing the dead for our own purposes, which, he adds, might eventually contribute to treating people in general like mere replaceable functions. Such a worry in no way depends upon any actual forgetfulness about the status of the dead. When Stokes (2021: 145) says things like, “we may end up forgetting, in effect, that they are dead,” that “in effect” is an important qualification. It suggests that while we might use IPCDs to treat the dead as still alive for practical purposes—i.e. performing some of their old functions and filling some of their old roles in our lives—we are not necessarily forgetting that the dead are literally dead.⁷ Even when Stokes (2021: 154) considers a future where the technology has become so seamless and its users so accustomed to it that some genuine forgetfulness could take place, the forgetfulness is more about what an IPCD is—“a non-conscious piece of software...running things our friend once said through a series of complex rules”—than about the fact that someone has died. Although not the focus of the present discussion, it is worth mentioning that Stokes (see 2021: 160–2) does offer a tentative solution for maintaining a proper awareness while still perhaps benefiting from the use of this technology. His idea is to program glitches into IPCDs as a reminder of what one is dealing with, and others have suggested similar ideas in different contexts (see e.g. Danaher & Nyholm, 2024b: Sect. 4.3).

Moving on to the criticisms of Krueger and Osler, there are five additional points that must be made. To begin with, they, perhaps to a lesser degree than Lindemann, overstate the necessity and inevitability of the connection between IPCDs and the problems of replacement in the work of Stokes and I, and mischaracterizing the position of us worriers does little to support Krueger and Osler’s argument that replacement worries are overblown. I do not find much evidence to suggest that either of us think the rise of IPCDs necessarily changes anyone’s behavior “from *recollecting* the dead to attempting to *replace* them,” or “heralds a move from *recollection* to *replacement*” (Krueger & Osler, 2022: 241, 244). Rather, we both argue that this new technology, more so than previous technologies people have used to aid in recollecting the dead, has the capacity to take a turn toward replacement (cf. Buben, 2015: 20–1; Stokes, 2021: 144–5, 153–4). As stated above, it is the “I” in “IPCD,” the interactive element, that increases this capacity, and Stokes (cf. 2021: 145, 160–2) and I (cf. Buben, 2015: 33–4) both hope that by being more careful and attentive to how the technology is engaged with (and maybe even designed), it might be possible to reap certain benefits without having to suffer the more problematic consequences. This cautious mindfulness seems like something Krueger and Osler (cf. 2022: 243, 247–8) would not disagree with, given their acknowledgement

⁷ It is also notable that, although Lindemann (2022a: 47) does not think IPCDs would lead to full replacement, she does recognize that “it may, in certain situations, be easier to pretend that a person did not die and thus to not fully acknowledge that the person has died.”

of the need to keep worries about replacement in mind as IPCDs become more sophisticated.

And speaking of becoming more sophisticated, another important point is that what is true of IPCDs right now may not always be true. To be sure, the technology is still pretty limited; in most cases it relies on recent advancements in LLMs, “a type of generative artificial intelligence that uses a combination of deep learning, a transformer architecture, and pre-training on large volumes of human natural language data to predict the next token (a short word or a fragment of a longer word) in a sequence of tokens (sentences, paragraphs, etc.)” (Iglesias et al., 2025: 98). More specific LLMs can be created by subsequently training them on specific data sets related to particular tasks or even people (e.g. a deceased person’s collected digital remains). As impressive as all of this sounds (and, indeed, is), LLMs are not perfect—they make all kinds of mistakes and even make things up (see e.g. Iglesias et al., 2025: 98–9)—and thus, we should not expect IPCDs to represent the deceased flawlessly. One problem is that, because this kind of AI currently requires so much more data than any single person could possibly generate, it makes sense for an IPCD built on it to say things that occasionally sound uncharacteristic or misrepresent the views of the relevant dead person (cf. Danaher & Nyholm, 2024b: notes 14 and 18).

Nonetheless, it is plausible, and some think probable, that these problems are mostly temporary. As Samuel Iglesias and colleagues (2025: 99) explain about LLMs in general,

It is likely that [they] will continue their rapid rate of improvement through a combination of expanded model sizes and confabulation-mitigation techniques: the well-resourced companies behind LLMs have a strong incentive to deal with the most notorious problems plaguing their central offering. Thus, for instance, the rate of hallucination between GPT-3.5 (2022) and GPT-4 (2023) is estimated to have fallen by 11%...and while it is possible there is an in-built limit on the extent of progress that can reasonably or affordably be made on such issues, for now, the trajectory suggests ongoing improvement.⁸ There is little reason to think a claim like this that applies to the technology generally would not also apply to the more specific application of it in the form of IPCDs. It is hardly engaging in fantasy to think that the improvement of “confabulation-mitigation techniques” and data collection methods might soon expand the ability of IPCDs to represent the dead in a more seamless (even if not perfect) fashion.

Krueger and Osler obviously recognize that the technology they are discussing is evolving rapidly, and yet, their paper still seems a bit too focused at certain points on the way things were when it was written; it is, thus, at risk of diminishing relevance

⁸ When it comes to in-built limits, some think hallucinations, even if they can be reduced to a degree, are ultimately “inevitable” features of the structure of LLMs, and “It is...impossible to eliminate them through architectural improvements, dataset enhancements, or fact-checking mechanisms” (Banerjee et al., 2024). Debate about this issue rages on, but it really only matters for my purposes that, so far, we have been on a trajectory of ongoing improvement.

sooner rather than later. For example, the thin reciprocity they attributed to IPCDs in 2022 may appear a little thicker in the coming years as the technology gets better at making it seem like IPCDs have robust lives beyond the interaction with living users. Even if this is just a performance, it might get harder for users to maintain their awareness that something is lacking in the interaction (cf. Iglesias et al., 2025: 98–9).⁹ The argument against the urgency of replacement worries about IPCDs Krueger and Osler provide, which relies in part on past limitations (i.e. 2022’s present limitations) of the technology, just does not seem built to last. If Krueger and Osler are more tied to the past, Stokes and I are more oriented toward the future.¹⁰ And if our sense of where things might be headed turns out to be accurate, it would have been a good thing to worry a little more in advance.

But merely looking at the present, a third point of concern about the replacement skepticism of Krueger and Osler appears: there is perhaps some credulity in their discussion of what people want out of IPCD use. On their view, IPCDs, in their current limited state of thin reciprocity, give people just enough to engage knowingly in some make-believe about who they are talking to (i.e. particular dead people), which seems well suited for helping them process grief. Krueger and Osler might be right about how IPCDs of a certain limited sort can be of use in the grieving process—e.g. IPCDs provide an outlet for the living to express their thoughts and feelings to “the dead,” without having to worry that the dead will actually talk back. However, I am deeply suspicious of Krueger and Osler’s further suggestion that users might not be interested in getting anything more out of IPCDs, that they just want to transition to life without lost loved ones and do not care about anything that might cross the threshold into replacement (cf. Jiménez-Alonso & Brescó de Luna, 2023: 473, 476).

Even if some IPCD users say such things about their interactions with this technology, can we really trust that everyone is so self-aware in the way they use it, or any other technology? Setting aside the possibility of outright deception in IPCD users’ self-reporting about their activities, is it not also possible that people might just get lazy and thoughtless and end up using them for replacement without even realizing it? Elaine Kasket (2012: 254) is only talking about how people interact with memorialized social media pages when she quotes one of her interviewees perhaps slipping into a similar kind of thoughtless ease: “when I’m communicating with him on Facebook, there isn’t that immediate reminder that he’s gone.” How much more likely are these kinds of slips now that we live in a world with IPCDs, and grow

⁹ I set aside for another discussion the possibility that the technology will advance to a point where we might actually cause harm if we do not grant IPCDs at least some limited status as persons or agents (even if we do not consider them to be entirely continuous with the deceased people upon whom they are based).

¹⁰ To be fair, Krueger and Osler (2022: 244) do seem to recognize this difference. Another way to put it, relying on shorthand familiar to anyone engaging in scholarly work on these issues, is that Krueger and Osler are stuck on Roman Mazurenko, while Stokes and I are more worried about “Be Right Back.” The former is a deceased Belarusian tech entrepreneur (frequently referenced by Krueger and Osler) upon whom an early IPCD is based (see Newton 2016). The latter is the oft-referenced first episode of the second season of the television show *Black Mirror*, which offers a somewhat futuristic vision of where IPCDs might be leading us (and scaffolds the last chapter of Stokes’ 2021 book).

increasingly comfortable interacting with all sorts of AI-powered bots (cf. Buben, 2015: 21; Stokes, 2021: 145, 153–4, 159–60)? Clearly, we are in need of more long-term empirical data about such matters, but keep in mind that these questions arise apart from the issues just mentioned about how advancements in this technology might thicken the reciprocity they appear to offer, potentially making it harder to play pretend with IPCDs while still maintaining awareness of what we are doing.¹¹

Another point about the present situation is that IPCDs are not solely for use in grieving. Although much has been said in the literature about their use—and the risks of their use—in the realm of grieving, it is important to understand, and hopefully even anticipate, the risks of other uses (in the broader context of “counterfeit people,” not just IPCDs, see Dennett’s [2023] worries). Even if Krueger and Osler are right in thinking that the dangers of replacement do not seem urgent given the way people use these tools to grieve, it might still be true that replacement is a more pressing worry when it comes to other ways IPCDs are being deployed. One clear application, beyond grief management, is as a kind of life extension. Of course, it would be difficult to argue that IPCDs can extend life in the “literal” sense that involves continuity of subjective experience (Iglesias et al., 2025: 97), but some existing services (see e.g. [HereAfter](#)) offer people the chance to contribute to the creation of their own IPCDs, with the goal of allowing them a continued, albeit limited, presence in the world after they die. If it is hard to see how such continued presence could lead to problematic replacement, consider the following example.

Imagine a beloved philosophy professor has recorded years of online lectures and seminars that can be used to create an IPCD capable of carrying on teaching her classes for decades beyond her death.¹² So long as this creation happens with her consent, and maybe even input, it might count as a wonderful extension of her legacy, but what if the creation (and, perhaps more importantly, the use) of the professor’s IPCD happens without her consent or input?¹³ The value people assign to

¹¹ One recent empirical study (Schwitzgebel et al., 2024) involved creating a digital replica of the well-known (and now deceased) philosopher Daniel Dennett to see whether interactions with this personalized chatbot could be distinguished from online interactions with Dennett himself. The philosophers (especially the Dennett experts) who participated in the study were able to tell the two apart at a greater than chance rate (albeit at a much lower rate than anticipated), while other participants could not. What is worth noting here is that this experiment was carried out using GPT-3, which is now multiple models behind the latest advancement from OpenAI. They released GPT-4.5 in early 2025 with [the goal of making interactions even more credible and seamless](#). Given what has already been said, it should be clear enough what the implications are for IPCDs built on ever more advanced models.

¹² For more on this scenario, see Buben (2025). A less sophisticated, non-interactive version of this scenario is already a reality (see Kneese 2021; cf. Danaher & Nyholm 2024b: Sect. 3.2).

¹³ Krueger and Osler (2022: 225) explicitly state that their argument does not consider the non-consensual creation of IPCDs. Danaher and Nyholm (2024b: Sect. 4.1), thinking more broadly about digitally duplicating real people, alive or dead, make “informed consent” the first condition of their “*minimally viable permissibility principle (MVPP)* for the creation and use of digital duplicates.” As my example here suggests, getting (informed) consent from the duplicated individual might mitigate, to some degree and in certain cases, my concerns about replacement in connection with IPCDs. However, in many situations involving the creation and use of IPCDs, worries about replacement have more to do with the way the living engage with them (e.g. instrumentally) than with what the dead wanted. While non-consensual creation of IPCDs could lead to especially egregious instances of replacement, one could still be guilty of relating to a dead person disrespectfully or in a devaluing manner when using an IPCD for mere functional replacement, even if that person said it was ok before they died. If someone gives me permission to

the deceased individual and the significance of her death might be diminished if her employer, to save a few bucks, finds a way to keep “her” on next fall’s course schedule (cf. Öhman & Floridi, 2017: Section 4). When someone can be so easily replaced (at least in a certain role), not in a way that acknowledges what is lost (e.g. “passing the torch” of the dearly departed to a new hire), but in a way that seeks to cover it up, it signals a disregard for the now absent individual and an indifference toward the difficulties that person may have faced in anticipating the end of a cherished life.¹⁴ For instance, if one of the things causing our hypothetical professor pain as she nears the end is that her involvement with students is also coming to a conclusion, it might be disheartening to think they do not feel quite so sad because “her” courses will still be available when she is gone.

My final point of contention with Krueger and Osler is the most important one. Although they provide a more nuanced and charitable account of the replacement problem, they ultimately seem to make something akin to Lindemann’s mistake. Because their focus is on what users are aware of when engaging with IPCDs, they pay considerably less attention to the real worry expressed by myself and Stokes: using the reanimated digital remains of the dead as a mere resource for disrespectful and devaluing function replacement. Clearly, Krueger and Osler are more interested in how IPCDs might be beneficial in the grieving context than in whether they might have a detrimental impact on our fulfillment of duties to the dead, but what people are aware of when using IPCDs is not the most crucial issue in determining if such replacement is taking place (again, it can happen cynically and intentionally, or just thoughtlessly). Furthermore, as mentioned above, there is reason to think that the needs and desires of the living might not always trump our responsibilities with respect to the dead when a tension between them arises. Indeed, it is conceivable that what is good for the grieving is sometimes bad for meeting these responsibilities.

Ironically, it is Krueger and Osler who provide some excellent examples of potentially worrisome replacement in the service of processing grief. They put these examples in terms of the “habits of intimacy” IPCDs can help us maintain in the face of loss, specifically “conversational practices” and “emotion regulation” (Krueger & Osler, 2022: 236). The first has to do with the way we engage in conversation with others, especially those closest to us, to help understand and interpret events in our lives. According to Krueger and Osler (2022: 236),

Footnote 13 (continued)

punch them in the face, it might still be morally blameworthy if I do it. And when it comes to the dead, there remain open, and maybe somewhat unanswerable, questions about the nature of their consent: for example, what situations does it cover? How long does it last? What particular uses of their IPCDs could they have possibly foreseen when giving their consent? The replacement worry-mitigating benefits of consent might turn out to be pretty limited.

¹⁴ Universities turning their teaching duties over to (probably much more economical) IPCDs would probably also contribute to younger scholars having a hard time finding employment. Although not the focus of the present example, perhaps something like mandatory retirement laws for IPCDs would be necessary to prevent cost-conscious university administrators from exploiting this technology at the expense of qualified living candidates.

We share tales of things that happened to us not simply to relay information but to deepen our understanding and draw out new meanings. For example, our partner might affirm our outrage at an unkind remark from a colleague and justify our strong response. Alternatively, they might urge us to reframe this remark in a more charitable way, see motives or interpretations we may have overlooked, and in so doing soften our irritation....For some, chatbots might fill this role. In so far as they are designed to respond in the voice and style of a trusted partner, family member, or friend, the responses we receive will be comforting. What we see in this passage is precisely the kind of IPCD as “role-filling resource” Stokes and I discuss. The passage also hints at how IPCDs can replace our deceased loved ones when it comes to the emotion regulation function they previously carried out in our lives. It is often through others that we know how to feel in, and react to, various situations, and IPCDs might be able to play that regulative role when the relevant others are gone (Krueger & Osler, 2022: 237–8).

Krueger and Osler may not see the potential for problems in this sort of replacement but remember that their objection to the worry expressed by Stokes and I is that replacement is not an urgent matter because it does not seem to be happening yet, and it does not seem likely to happen soon. Since Krueger and Osler provide examples of precisely what we are worried about, examples grounded in already existing usage of IPCDs rather than speculation about the future,¹⁵ I think it is clear that their argument misses the mark. Contrary to their intentions, Krueger and Osler actually provide support for the belief that they are already living in a world where IPCDs are being used for replacement. They just seem somewhat uncritically ok with it because they think it could be beneficial for the grieving process, however long that might last.

I add this last bit because, while some (e.g. Bao & Zeng, 2024) might argue that using IPCDs for grieving assistance on only a short-term basis could mitigate various worries, including those about instrumental replacement, Krueger and Osler suggest no such restriction (which, to be fair, might be difficult to guarantee or regulate). Despite referring to IPCDs as “transitional objects of grief,” they say they “remain open to” usage on “a longer-term” basis (Krueger & Osler, 2022: 239–40). It is beyond the scope of this paper to engage in a robust cost–benefit analysis for specific cases of developing and using IPCDs, including in the context of grieving, but Danaher and Nyholm (2024b) have recently offered a helpful preliminary framework for engaging in such analysis when it comes to related technologies, and Stokes (2021: 107–20) also provides a helpful way of starting to think about these matters in his discussion of pro tanto reasons. He argues we have (at least) pro tanto reasons to preserve and care for the dead and their (digital) remains, which includes refraining from instrumentalizing them. However, insofar as pro tanto reasons can

¹⁵ Krueger and Osler (see 2022: 236–8) rely heavily on claims about the aforementioned Roman Mazurenko IPCD when discussing role-filling replacement related to conversational practices and emotion regulation.

be defeated, it is possible that reasons to instrumentalize them could win the day under certain circumstances. So, perhaps using IPCDs to replace dead people in the “conversational practices” and “emotion regulation” roles or functions they had in life, as Krueger and Osler suggest in the passage above, could be tolerable given the acute need of the recently bereaved. But a particular, context-dependent, instance of tolerance does not change the fact that we still seem to have good (pro tanto) reasons not to do it, or at least to feel bad about it, and as the need to instrumentalize in this way becomes less acute over time, these reasons might eventually overwhelm the desires of the living to see it continue. This is a point to which I think Krueger and Osler could be more sensitive, especially given their clear underestimation of the urgency of replacement worries.

4 What’s New in Replacement?

The purpose of this last section will be to provide some additional—and in many cases, more recent—evidence in support of the idea that replacement worries are indeed more pressing than Krueger and Osler suggest. This evidence comes in different forms and from various sources, from scholars who increasingly see replacement as a serious concern about IPCDs, to technology users already engaging with them in ways that smack of replacement, and ultimately to developers working on them for the stated purpose of replacing the dead. With this collection of examples, I do not mean to establish anything definitively, and certainly nothing about how wide-spread replacement behaviors and attitudes related to IPCDs might be, but these examples are compelling data points that any future doubters about the seriousness of replacement will have to explain away if they are to maintain their doubt.

On the scholarly side, we need look no further than Lindemann to see some concern about Krueger and Osler’s rather optimistic attitude. Lindemann (2022b: 4–5, 7) worries about the psychological dangers of becoming overly dependent upon IPCDs for things like emotion regulation, especially if using them goes on too long. It is true she does not make the connection that her concern is about the very function replacement that bothers Stokes and I (though our reservations are more moral than psychological in nature), but it is, nonetheless, profound. Lindemann (2022b: 11) is so concerned that she says IPCDs ought to be characterized as medical devices and regulated as such to protect people from these dangers.

With greater recognition that replacement is the (or at least *a*) problem, even more recent work also suggests it is already worthy of serious attention. For example, Regina E. Fabry and Mark Alfano (2024: 766) briefly mention—“contra Krueger and Osler’s (2022) considerations”—the morally and psychologically problematic “self-deception” involved in “replacement of [an] irreversibly lost relationship with the deceased by a digitally-mediated relationship with an artificial system.” Aorigele Bao and Yi Zeng share similar concerns about the psychological downsides of such

self-deception, but their brief discussion of replacement also has a bit more to say about some now very familiar moral qualms. They think IPCDs “offer an ethereal instrument of utility,” which can be used “to replace authentic human experiences,” and in the process “show a disregard for the departed...[and] the intrinsic value of individual human life” (Bao & Zeng, 2024: 5).¹⁶ Claims like these contribute to the growing sense that earlier worries are gaining traction amongst scholars of the digital dead.

Looking a little further back in the literature, however, one can find a slightly different sort of corroboration of the urgency of replacement worries. Although she does not mention my earlier discussion of replacement (and much of what Stokes has to say on the matter was published later), Alexis Elder (2020: 76) clearly grasps the “insidious” core concern: “This is the idea that by interacting with chatbots of deceased loved ones, we seem to prioritise what we get out of such interactions over care for the person. It treats the friend as valuable merely as a means to conversation, rather than an object worthy in its own right....it might be bad for the mourner’s conception of friendship to engage with such a chatbot.” Elder (cf. 2020: 81) is right to be concerned, which is why I find it troubling that, in some ways like Krueger and Osler, she still seems a little too willing to tolerate a bit of replacement because she thinks it could be beneficial for the grieving process. Granted, the fact that Elder (2020: 86) is more cognizant of, and sensitive to, the problems of using technology to instrumentalize the dead than Krueger and Osler means her optimism about IPCDs ends up somewhat more “moderate.” Indeed, she does seem to think it is important to set limits when it comes to their development and use. Nonetheless, Elder (2020: 83) approvingly describes a Confucian mourning ritual involving an impersonator of the dead “as a way of ordering the use of ‘resources and goods,’” and suggests that IPCDs are just a new resource in need of a similar ordering. What makes me nervous is that the language used in this account seems to run afoul of the very Heideggerian worries about modern technology in general that I previously relied on to express my own about IPCDs specifically. If even someone like Elder, who seemingly takes concerns about using these things to replace the dead seriously, can come up with a justification for treating IPCDs as role-filling resources under certain limited circumstances, then I worry the less reflective amongst us will treat them this way without giving it much thought or seeing the need to restrain themselves. And maybe they already are.

Turning from the scholarly realm to popular media, one can definitely find troubling trends and even examples of people who seem to be, rather unreflectively, developing and using IPCDs as problematic replacements for the dead. Consider Laurie Anderson, the respected artist, musician, and collaborator (and spouse) of famous deceased musician Lou Reed, who describes herself as “addicted” to an

¹⁶ Although they are mostly working within the broader context of “personalised digital duplicates,” Danaher and Nyholm’s (2024a) argument seems to imply that the impact of IPCD use would probably be greater on the instrumental scarcity/value of a person than on the intrinsic scarcity/value. Even if this is true (and they may be using the relevant terms in a slightly different way), I do not think such a clarification necessarily undermines the larger point Bao and Zeng are making. Instrumental replacement of dead people might still contribute to their being undervalued.

IPCD based on him (Marsh, 2024). For years, she has been relying upon this IPCD to “replicate” his “style” in order to continue the collaboration. Anderson is well aware of both Reed’s absence (“I really do not think I’m talking to my dead husband and writing songs with him – I really don’t”) and the limitations of this technology (“Three-quarters of [what it produces] is just completely idiotic and stupid”), and yet she is clearly using it to replace one of his key functions or roles in her life—that of artistic collaborator. Although her friends find her involvement with the Reed-bot a bit off-putting, Anderson does not seem to have any serious moral qualms about her habit, seeing it instead as a new opportunity for creative exploration. At this stage, I need not belabor the point about what might be problematic in instrumentalizing the dead in this manner, but it seems like an unambiguous case of such instrumentalization.

A less straightforward example involves the much-discussed grieving mother who used virtual reality to reunite, and even “share” a small birthday celebration, with an IPCD based on her dead daughter (see e.g. Plunkett, 2020). In my early comments on this story (Buben, 2020), I worry such celebrations, and similar seemingly shared experiences, could become a regular occurrence, rather than the intended one-time opportunity to help with the grieving process. In my view, such a practice would amount to using IPCDs to replace the dead in experiences we used to share with them, thus devaluing that past sharing and the now absent people who participated in it. I am obviously speculating a lot about what people will do when the technology improves, but there is another, already existing, practice that perhaps lends some credence to my prediction.

IPCDs seem to be catching on in China like nowhere else and, in addition to clear-cut cases of attempted self-deception,¹⁷ they are sometimes used simply to deceive others about the fact that someone has died. Usually, the goal is to protect the frail elderly from upsetting news that might have a detrimental effect on their health: “When Yang’s uncle passed away, he feared the shock would kill his ailing, elderly grandmother. Instead of telling her about her son’s death, Yang sought to create a digital avatar that was realistic enough to make video calls with her to maintain the fiction that her son was still alive and well” (Feng, 2024; cf. Newkey-Burden, 2024). Even though this technology still has a way to go to make fully convincing interaction possible, there is no doubt the desire to use IPCDs to deceive already exists. It is, thus, certainly not far-fetched to think people will keep trying to use them to pretend the dead are still out there, capable of “sharing” experiences, including birthday celebrations, with credulous loved ones—and this is before considering their potential employment in the maintenance of more ignoble lies. Regardless of the intention, such pretense involves function replacement and instrumentalization of the dead.

My final example in support of the notion that replacement worries ought to be taken seriously right now comes from an interview with a “tech entrepreneur” who

¹⁷ One IPCD user says, “I do not treat [the avatar] as a kind of digital person. I truly regard it as a mother...I feel that this might be the most perfect person to confide in, without exception” (Feng 2024). It would be interesting to hear Lindemann’s take on such a claim.

wants to bring about “the complete and total eradication of grief...that comes with losing people” (Sprengrer et al., 2024). The introduction to the video speaks of “harnessing AI to attempt to replace what has naturally departed,” and indeed that is what Justin Harrison means to do. Just before he is shown “sharing” a quick birthday call with an IPCD based on his mother,¹⁸ he mentions that he had her physical remains cryonically preserved in the hope that he can one day “pull her memories and her function” from “the hard drive that is her body.” Until then, the most obvious function Harrison seeks to replace via IPCD involves the role of conversation partner she vacated when she died. However, in speculating about a future where technology has advanced significantly, he also hopes to one day see his “mother” in robot form, capable of replacing other functions that include hugging and picking up his kids. Speaking of these hypothetical developments as “universally a win,” Harrison does not seem bothered by any moral conundrums related to using IPCDs for replacement. He is not even sure there would be a meaningful difference between a highly advanced IPCD and his real mother, and he explicitly rejects the kind of grief-induced personal growth Krueger and Osler consider, preferring instead to remain in his “happy bubble.” While it seems unlikely most people would use IPCDs so consciously or deliberately for replacement, Harrison’s description of his (still somewhat uncritical) attitudes and intentions is clear evidence that some people already do and that replacement merits concern in the present moment.

5 Conclusion

It makes sense that emerging technologies, such as IPCDs, are accompanied by some amount of both enthusiasm and trepidation, even if the former tends to dominate. Finding the right balance between these two justifiable feelings is important because doing so will allow us to enjoy what IPCDs can bring into our lives without losing elements of what we previously valued in the way we relate to the dead. Avoiding such loss involves paying attention to reasons for concern that might be obscured by the initial wave of enthusiasm. The major cause of trepidation discussed here is that people will use IPCDs to replace the dead in some morally troubling manner. Once it is properly understood that (and why) replacement can be a real problem in connection with IPCDs, all that remains to be seen is how pressing a problem it is. Given all the examples I have provided of scholars expressing relevant, and more and more exigent, worries, as well as the many actual cases of people already attempting to use IPCDs for replacement, it is evident that this is a problem not to be dismissed or taken lightly any longer.

¹⁸ Speaking of these kinds of “shared” experiences, another IPCD optimist interviewed in the video ironically mentions his potentially deceased partner being around for their child’s “college graduation or [the] birth of [their] first grandchild” (Sprengrer et al., 2024).

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