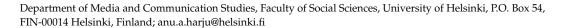*Article*

Theorising Digital Afterlife as Techno-Affective Assemblage: On Relationality, Materiality, and the Affective Potential of Data

Anu A. Harju

Department of Media and Communication Studies, Faculty of Social Sciences, University of Helsinki, P.O. Box 54, FIN-00014 Helsinki, Finland; anu.a.harju@helsinki.fi

Abstract: In the ongoing academic discussion regarding what happens to our data after we die, how our data are utilised for commercial profit-making purposes, and what kinds of death-related practices our posthumous data figure in, the notion of *digital afterlife* is attracting increasing attention. While the concept of digital afterlife has been approached in different ways, the main focus remains on the level of individual loss. The emphasis tends to be on the role of posthumous digital artefacts in grief practices and death-related rituals or on data management issues relating to death. Building on a socio-technical view of digital afterlife, this paper offers, as a novel contribution, an understanding of digital afterlife as a techno-affective assemblage. It argues for the necessity of examining technological and social factors as mutually shaping and brings into the discussion of digital afterlife the notions of relationality, materiality, and the affective potential of data. The paper ends with ruminations about digital afterlife as a posthumanist project.

Keywords: death; data; digital afterlife; assemblage; relationality; materiality; affect; digital media

1. Introduction

Our contemporary lives are thoroughly infused with the digital. Our everyday activities are marked by entanglements with data that most of us hardly pay any attention to; not only does this concern intentional engagement with digital media, for example, but also includes the less acknowledged algorithmic encounters (see Beer 2019; Neyland 2019) that, in addition to organising social life, render data points into commercial value and insight. Although critical voices have been raised (see, e.g., Zuboff 2018), warning of over-optimism regarding the advantages and gains of the widespread uses of digital technologies, technological advancement is often met with techno-solutionist enthusiasm and is seen as offering solutions to existing problems. Yet, this is not always the case; digital technologies also produce novel problems and enhance old ones, and death is no exception.

In the context of digital death and the focus of this Special Issue, one area in need of critical examination and further theoretical work is digital afterlife, a line of research that in recent years has gained momentum (Harju and Huhtamäki 2021, 2024; Morse 2024; Altaratz and Morse 2023; Harbinja 2020, 2022; Birnhack and Morse 2022; Stokes 2015, 2021; Bassett 2018, 2022; Kasket 2020; Sisto 2020; Sofka 2020; Savin-Baden and Mason-Robbie 2020a; Savin-Baden 2019, 2022; Lagerkvist 2018; Wright 2014; Graham et al. 2013). What initially presented to platforms primarily designed for the social networking of the living as necro-waste (Karppi 2018) was soon turned into revenue generating affective meeting points through policy and design changes (Kneese 2023).

In this regard, the dead circulating online are plagued with similar concerns facing users during their (media) life. In addition to questions of persistence or disappearance of digital material, there are numerous ethico-moral, legal, economic as well as sustainability concerns relating to both the dead and those still living (Harbinja 2022; Hurtado Hurtado, 2023; Wolf et al. 2022; Öhman and Floridi 2017; Öhman 2024). Technological companies involved in many forms of digital afterlife are revenue-seeking corporations with a sizeable

carbon footprint. One of the issues raised is the exploitative economic relations between service providers and users that continue in death as the dead continue to live on in various databases and on commercial platforms.

Regardless, many studies point to the benefits of digital afterlife for the bereaved and the importance of digital artefacts in grief practices and other death-related rituals (e.g., Bassett 2018, 2022; Sofka 2020). Here, digital afterlife is typically understood in terms of posthumous digital artefacts that in some way (commercial or contractual ownership) belong to the dead (e.g., music and photo libraries, social media profiles, e-mail and other online accounts) or otherwise concern the dead (e.g., photographs or videos of the dead, text and voice messages, health data, online profiles, comments and other texts and images) that all amount to the digital traces and data points left behind by the dead. However, digital afterlife is not restricted to the bereaved but entails the use of digital material of the dead in other contexts and for other purposes, from public performances of solidarity and memorialisation (Morse 2023) to mobilisation of grief (Jiwani and Bernard-Brind'Amour 2023) for social and political change, but also more sinister circulation of data of the dead (de Vries 2022).

Despite increasing literature and growing research interest on the topic, clear and theoretically robust conceptualisations of digital afterlife are still somewhat lacking. It is often reduced to an instrumental role and viewed as something that the living do something with or something to: either digital afterlife is incorporated into social practices and rituals, or it is stored, archived, deleted, circulated online, etc. The concept thus suffers from being applied too broadly to refer to 'all the digital material and data people leave behind in death' on commercial platforms and personal hard drives, which takes away from the explanatory power of the concept.

Another indication of a lack of more nuanced conceptualisations of what a digital afterlife *is* (as opposed to what digital afterlife does or affords) is the frequent and misguided use of *digital afterlife* and *digital immortality* as more or less synonymous without sufficient delineation between the terms: these concepts, however, are not interchangeable. They point to different types of digital productions whose origins, aims, motivations as well as material realisations relating to death, dying, and remembering differ significantly. Quests for immortality, digital or otherwise, seem to imply a certain intentionality (Jacobsen 2017, p. 6) and a desire for immortalisation and eternalisation after death. Digital afterlife, on the other hand, is a result of a life lived in the media (Deuze 2014) and requires no such intent.

For the purposes of this short article, digital immortality projects can thus be understood as more or less planned—either by the future dead, or posthumously by the living of their dead—driven by the idea of continued existence after the death of the physical body (Sisto 2020). Various market solutions exist for those aspiring to be/come immortal in the digital realm or form, yet these tend to be short-lived and riddled with problems (Kneese 2023; Kasket 2020; Öhman and Floridi 2017). The instability and unreliability of such necro-technologies (Nansen et al. 2023) highlight the material and economic fragility of digital technologies: despite having been specifically designed to generate and guarantee a version of "immortality", as socio-technical constructions, these, too, have a lifespan.

When thinking about the technological character of digital afterlife, issues of permanence and/or fragility are the more obvious ones. However, we need to think more deeply about what the ontological character of data means, not only for digital afterlife per se, but more widely for identity, agency, and memory, for example. This requires taking data seriously, a perspective still lacking attention in theorisations of digital afterlife. In their socio-technical approach to digital afterlife, Harju and Huhtamäki (2021) centre data to illustrate the constitutive entanglement of the social with the technological. Situated in the field of media studies, this paper continues this line of thought.

The paper adopts a relational perspective to the concept of digital afterlife, and drawing on assemblage thinking, extends theorisation of the inseparability of the social and the technological in the constitution of digital afterlife. This approach allows looking beyond social practices and zeroing in on what lies at the core of digital afterlife, to what it means

for digital afterlife to be rooted in the digital. It also helps zoom out to see digital afterlife suspended in and shaped by a world infused with capitalist logic (see Ibrahim 2024) and the various forces working to either enhance or impede its relational outcomes in the contemporary datafied society (see Kneese 2023).

The paper is structured as follows: after a short overview of current understandings of digital afterlife, a socio-technical perspective is presented. Building on this, I then propose approaching digital afterlife as a *techno-affective assemblage* and elaborate on the three fundamental characteristics of digital afterlife—relationality, materiality, and affect. Finally, the concluding words gesture towards thinking about digital afterlife as a posthumanist project that reflects the current cultural changes in how we think about death and dying in today's technologically enframed world.

2. The Story so Far: Digital Afterlife as an Archive of Memories for the Living

Depending on one's perspective, digital afterlife has been discussed in terms of *digital traces*, *posthumous digital assets*, *digital estate*, *digital legacy*, *digital inheritance*, or *digital remains*. As the terminology implies, each adopts a slightly different approach, placing varying emphasis on the legal and material possibility of passing on and receiving the digital material and data of the dead as well as the socio-ethical and/or legal concerns of such acts, the moral and legal rights of the deceased to privacy, and planning one's own data management after death, thus seeking to control what happens to one's data when the time comes.

Digital afterlife has recently been defined, for example, as "the continuation of an active or passive digital presence after death" (Savin-Baden and Mason-Robbie 2020b, p. 12), which the authors take to be an umbrella term that includes in it the notion of digital immortality. The authors differentiate between these in temporal terms: where digital afterlife "assumes a digital presence that may or may not continue to exist", digital immortality "implies a presence, in some form at least, *ad infinitum*". However, rather than add conceptual clarity or analytical usefulness, placing the terms in a hierarchical relation serves to blur the constitutive boundaries of each, especially as the subordinate category (digital immortality) seems to be at temporal odds with the superordinate one (digital afterlife). If hierarchical relation was insisted on, and if some analytical utility was achieved through this move, then perhaps 'digital death' (see Sumiala and Jacobsen 2024) as a broader, more encompassing concept might best serve this function.

Regarding digital afterlife, a more nuanced and expansive typology comes from Lagerkvist (2018, pp. 58–59), who defines digital afterlife as spanning three different types of digital afterlife phenomena: digital traces, posthumous memory work online, and after-death communication (sometimes also referred to as post-mortal communication). Lagerkvist also includes digital afterlife managers into her definition, noting how this category likewise includes three different types: afterlife estate planners, legacy avatars, and services for digital closure and 'erase your history software' (quotation marks in original).

Digital afterlife, then, seems to be an elusive concept. While vagueness in definitions results in an overlap and blurring of the constitutive limits of the array of concepts, they nevertheless share some commonalities. Digital material and data are invariably viewed as posthumous in nature, that is, produced or acquired during life, usually actively by the dead (or with their permission), a view that excludes any *post-death data* (Harju and Huhtamäki 2021), data produced after (and often because of) death and without the permission or knowledge of the dead. Focusing on posthumous data also comes with an underlying assumption that the accrual and development of digital afterlife ceases in death, further limiting the explanatory power of the concept: not only do post-death data exist, but they come in various shapes and forms—from tributes and commemorations to celebrations of death and denigration of the dead—that significantly contribute to and shape digital afterlife (Harju and Huhtamäki 2021) and the related affective social networks (Döveling et al. 2018). Digital afterlife is thus seen as comprising digital material belonging or relating

to the dead: what is less often emphasised is that such a relation can also be established post-death.

In addition to the dominant focus on posthumous data, current views on digital afterlife share a certain prioritisation of the living (e.g., Bassett 2018, 2022; Sofka 2020), emphasising their experiences, wishes, and rights, including access rights to posthumous data. This tendency to focus on those left behind gives lesser attention to the post-mortem rights of the dead, including *postmortal privacy* (Harbinja 2022) which "aims to protect informational bodies expressed, stored, mediated, and curated through technology" and which, "consisting of information, memes, and data", continue to exist in digital afterlife (Harbinja 2020, p. 102). The rights of these 'informational bodies' might be in stark contrast to the wishes of the bereaved (see also Birnhack and Morse 2022). Seeking continued digital presence of the dead is likewise motivated by the needs of the living; yet, on occasion, the erasure and deletion of data is a better option to guard the dead, their identity, and memory (Harju and Huhtamäki 2024).

It is clear, then, how digital afterlife, as a concept, extends beyond death-related social practices and digital material. Digital afterlife intrinsically includes the dead, concerning—even constituting—their person (Stokes 2021, p. 117), thus warranting more consideration of postmortal privacy (Harbinja 2022), post-mortem identity and personhood (Fisher 2021; Meese et al. 2015). Taking a philosophical stance regarding how the dead persist among the living, Stokes (2021, p. 83, emphasis in original) notes how "online personas *are* us rather than being representations of or about us" (see also Stokes 2015).

These issues all arise from the question of what it means for digital afterlife to be inherently rooted in the digital, often side-lined when the focus is on the social. And when the digital and technological character of digital afterlife is addressed, the main concern seems to be the durability/fragility of data and reliability of technologies (see, e.g., Kasket 2020), typically reduced to cautioning against the disappearance and destruction of data coupled with precautionary preparations for platform or service provider failures. However, the digital basis of digital afterlife amounts to much more than that.

3. Socio-Technical View of Digital Afterlife

This article starts with the premise that there is a need for new and more precise vocabulary and conceptual apparatus to address and explain the complexity of digital afterlife, an account that considers not only the social dimension but also the technological character of digital afterlife, paying attention to the implications this condition has on a personal as well as a societal level. A socio-technical understanding of data and digital artefacts not only views them as technological, but as deeply social, too, as they have been designed, produced, adopted, and used by people as a result of various social processes. The technological and the social are interdependent, and neither exists without the other (Leonardi 2012). As a concept, socio-technical has been defined, for example, as referring to technologies where "the logics, techniques, and uses of these technologies can never be separated from their specific social perceptions and contexts of development and use" (Elish and boyd 2018, p. 58).

This condition applies to digital afterlife, too, and is the reason why digital afterlife cannot be reduced to social practices only. Rather, digital afterlife embraces the social on a deeper level, from the constitution of data through to social practices and social and political life where it finds its meaning. A socio-technical lens also allows examination of the interconnectedness of online and offline practices and the ways in which technologies figure in these without the need to separate the social from the technical.

The view of digital afterlife as a socio-technical configuration introduced by Harju and Huhtamäki (2021; see also Harju and Huhtamäki 2024) draws on a multi-method research on the 2019 Christchurch mosque shooting. Based on the digital team ethnography of the terror attack (Tikka et al. 2023), Harju and Huhtamäki developed a data-centric approach to digital afterlife. The close collaboration between Harju and Huhtamäki combining qualitative ethnographic research with computational tools led the researchers to realise

the apparent and artificial separation in the literature between the social and the techno-logical, particularly pertinent in literature on digital afterlife; during the ethnography, it became clear that neither existed without the other. Mourning rituals, shows of solidarity, circulation of digital afterlife artefacts as well as affects in online spaces witnessed and examined by the ethnographer all needed a material basis—this material basis was data, the code flashing on the screen of the computer scientist. The authors realised the need to bring up the importance of thinking about data (specifically) from various perspectives in discussions of digital afterlife which, although present in the form of digital artefacts, was largely absent in a constitutive sense.

Following this, Harju and Huhtamäki (2021) conceptualised digital afterlife as a relational socio-technical configuration of affective nature; more precisely, the authors argue for the need to view digital afterlife as consisting of two co-constitutive and overlapping dimensions—*data afterlife* and *data as afterlife*—where the technological dimension of data not only provides the materiality for social action, it also underlines the life cycle of data, making visible the inherent fragility and mutability of digital afterlife. This material fragility necessarily includes and feeds into the social dimension of digital afterlife.

As noted earlier, digital afterlife is the product of a media life (Deuze 2014), a life lived in (rather than with) media, or living 'onlife' (Floridi 2015). The analytical distinction between digital afterlife as a meaningful resource for the living, on the one hand, and digital afterlife being constituted by data with its own lifespan, on the other, serves several purposes. Not only does this conceptual move help arriving at a more theoretically satisfactory understanding of what is a complex empirical phenomenon, one that considers multiple aspects, their interrelations as well as their outcomes, but also allows reconciling the personal with the societal, and the technological with the social.

Building on a socio-technical understanding of data, I will next propose a novel view of digital afterlife, conceptualising it as a techno-affective assemblage, and discuss what I propose are the three fundamentals that make the social life of digital afterlife possible: relationality, materiality, and the affective potential of data.

4. Understanding Digital Afterlife as Techno-Affective Assemblage

Digital afterlife exists at the intersection where life and death meet the digital, and intersect with the living through affective relationality. We are at the point in history where "data of the dead and the living commingle" (Kneese 2023, p. 6); yet, it is more than a matter of commingling. The dead and the living are inextricably entangled with various technologies, of which digital afterlife is but one materialisation. The question seems to be the degree of relationality and agency assigned to the participants in the relational matrix.

Assemblage thinking (originally by Deleuze and Guattari 2003) offers as way to recon-cile the nature of data with the social as it incorporates human/non-human relationality, materiality, distributed agency, and the social in a way that makes digital afterlife more than the sum of its individual parts. Perhaps not surprisingly, there has been "relatively little consideration of agency in relation to digital afterlife" (Savin-Baden 2019, p. 304). It is here where assemblage thinking proves useful: rather than being attributable to any human in the assemblage, or seen as a property of humans more generally, agency is manifested in and as the assemblage (see DeLanda 2016). Perhaps the question is what such a techno-affective agency might look like when we view digital afterlife as an assemblage where different agential forces intersect.

One of the benefits of viewing digital afterlife as an assemblage, and as having techno-affective agency, is that it allows a move away from the representational and offers a lens with which we can examine digital afterlife as a dynamic entity that comes with a force that shapes people and things entering the assemblage. This also brings the dead into the realm of distributed agency. As a conceptual lens, assemblage enables a richer ontological conceptualisation of digital afterlife while keeping with relationality where the constitutive parts, while forming a whole, can also function separately and independently,

thereby being able to figure in new assemblages as relations between the constitutive parts are reformulated.

Iterations of digital afterlife exemplify such processes. Through an assemblage lens, we can reimagine the relations that intersect at the site of data and see digital afterlife as emergent, dynamic as well as agentic. For example, it makes a difference where post-death data (Harju and Huhtamäki 2021), such as images of victims of violence, emerge and what kind of assemblage they figure in, including which affective orientations they resonate with. The same material invites a range of affects, intersecting at the site of data. The techno-affective assemblage of human/non-human participants thus emerges as different in each relational encounter and always as open-ended.

Strongly relational, the view developed in this paper understands digital afterlife as a process rather than an entity: the analytical distinction made by Harju and Huhtamäki (2021, 2024) between *data afterlife* and *data as afterlife* is relevant here—only in an assemblage do data (as digital afterlife artefacts) emerge as digital afterlife of social relevance in and through relations. As with any technology, digital afterlife does not exist in a vacuum, but is the product of social life, and this is where it also finds its utility. I will next elaborate on the three foundational characteristics of digital afterlife that make the social life of data possible: relationality, materiality, and the affective potential of data.

4.1. Relationality and the Ontological Foundations of Digital Afterlife

In focusing on social practices and the emotional aspects of digital afterlife, ontological considerations of digital afterlife are often overlooked (however, see Stokes 2015, 2021; Reader 2020). Research on grieving practices has established the many ways in which individuals benefit from digital afterlife, and how they negotiate the digital material left by the dead (e.g., O'Connor 2020). Paying attention to relationality in these processes allows recognising a mutual shaping that holds within it the notion of ongoing change, variation, and development of participants in the assemblage, and thus also of digital afterlife as emergent, and, consequently, also of its meanings, affects, and potentials.

Digital afterlife is not a bounded entity that ceases to develop in death, but is taken up by people near and far, emerging in different assemblages, each shaping the relational actualisations of digital afterlife. Yet, the popular view of digital afterlife as a resource for post-death social practices implies a certain boundedness. Instead of rigidity, however, we can examine the numerous ways in which digital afterlife comes into being in and through relations and how digital afterlife becomes anew with each new participant. As a bundle of human–technology relations that vary across social contexts, an assemblage view encompasses social practices and ritual action.

As a flat ontology, relational ontology decentres (but does not exclude) the human as a point of departure for being and action, and instead places importance on relations and their outcomes. The primacy of relationships means we can approach and understand digital afterlife in a new way that also has implications for agency (of the dead, of data), identity (post-mortem identity), memory (multiple accounts, richer perspectives), and social action. Importantly, not all relations are equal in any relational assemblage, neither is the relational flow necessarily positive or beneficial, but may indeed be negative (Gergen 2011a). Relational thinking thus widens our perception of all that digital afterlife can be: digital afterlife does not only exist for the bereaved, neither does it only concern the living as the dead are very much implicated as are the technologies essential to the actualisation of digital afterlife.

The dead bring their personas, their histories, and their relational attachments to these relational assemblages entangled with technologies and other participants. According to Stokes (2015), the dead continue to exist in the network as persons (if not as selves). Persisting online as 'ethical patients', the moral status assigned to the dead feeds into duties of memorialisation where the deletion of data can be seen as constituting posthumous harm (Stokes 2021). Importantly, however, the living also bring their varying relational affects into the assemblage and thus shape how the particular digital afterlife becomes

actualised. The bereaved or the affected community relate to the digital afterlife of their dead in a different way than viewers of post-death data circulating online captured by bystanders, for example, the video footage of George Floyd's murder or the live-stream of the Christchurch terror attack. The bereaved, too, differ in their affective orientation, depth of intensity, and interest in engaging with digital artefacts of the dead, further complicating what digital afterlife can be.

Moreover, data artefacts themselves are relational (Kneese 2023; see also Davis 2020); viewing data as a site where relational and affective flows intersect and form different assemblages helps us see and analyse also the negative affective outcomes in the context of digital afterlife. Assemblage thinking holds explanatory power regards the varied and changing human/non-human configurations instantiating different digital afterlives through relationality. It also allows for future change and becoming; although many digital afterlife artefacts may go unrecovered or remain unknowable, the potential to enter relational arrangements remains inherent, further highlighting the partial and fluid nature of digital afterlife, its *becoming* in relations where becoming is manifested as a change in relational state.

As participants enter and/or leave relational configurations, digital afterlife is in constant flux; it is thus more accurate to talk about *a plurality of digital afterlives* as any singular notion escapes the richness and complexity of the empirical phenomenon. Next, I turn to the material basis of relational action.

4.2. Material Underpinnings of Digital Afterlife

To exist in the world and to figure in relations, digital afterlife needs to be embodied. Throughout time, death-related practices have involved material things, from mementos and belongings to religious and other sacred artefacts. Revisiting social practices and death-related rituals where digital (afterlife) artefacts have an important role highlights the necessity of bringing into the theorising of digital afterlife its materiality. Data are material in nature (Hayles 1999; Leonardi 2012), and with digital afterlife, they act as the material propping for social action (Harju and Huhtamäki 2021) and affective togetherness (Slaby et al. 2019).

As the specifics of materiality change, so does what materiality allows us to do (and not do); traditional print photographs have a different materiality from digital ones, differing also from live-streaming video technologies. Not all materiality matters to all individuals across different contexts (Leonardi 2012) for several reasons: individuals might not be aware of all that constitutes digital afterlife, for example, and the inherent characteristics, or they might lack required skills or knowledge, but people also have different attitudes regarding technologies, privacy, and so forth. The editability and shareability of digital images might not be of any use to a bereaved relative whereas someone seeking to de/recontextualize an image from photograph to meme (see de Vries 2022) might appreciate this characteristic of said materiality. This shows how material variables feed into relational outcomes, speaking to the 'why' and 'how' digital afterlife undergoes change. Materiality is thus at the heart of making different techno-affective assemblages possible.

Technical features, also called affordances, refer to "how objects enable and constrain" Davis (2020, p. 11) action. As argued by Davis, affordances do not force or compel human action, but facilitate and enable human agency and are thus mutually shaping, although relational forces are not always symmetrical (Davis 2020; see also Gergen 2011a, 2011b). Davis (2020) finds the term affordance useful to negotiate between materiality and agency; she flips the question of 'what' a given materiality affords to 'how' it affords. This perspective proves fruitful also for digital afterlife: *what* digital afterlife affords are support in grief, memories, presence of the dead, comfort in shared moments, etc.

However, *how* digital afterlife affords these is equally interesting, perhaps even more so: by entering relational flows, by affording affective encounters (with the dead, with other people, with meaningful data artefacts), by allowing editing, alteration, and shifting meanings, by offering malleability of form and content, by enabling circulation and uptake,

for example. This shows how materiality shapes its environment and the social relations it figures in (Hayles 1999); the inherent characteristics of data at the heart of digital afterlife thus shape what kind of social action is possible, by enabling or constraining, which again shapes our perception and understanding of particular instantiations of digital afterlife. Data materiality also affords the social life of digital afterlife, and how it affords this, is through affective relationality, as discussed next.

4.3. Affective Potential of Digital Afterlife

A lot has been written about the different uses of posthumous digital material in memory work, in grief practices, and in public mourning rituals (see Sumiala 2021), with the positive impact of digital afterlife well covered in the literature. However, with affect as the glue for social action, we would be foolish to think that the affective landscape around digital afterlives is exclusively benevolent. Thus, any analytically robust conceptualisation must be able to account for a range of outcomes, uses, and effects of digital afterlife, not only the positive ones, as digital afterlives can prove problematic, even traumatic.

Together with affective relationality, data materiality translates into different publics as participants. Writing about 'data as afterlife', Harju and Huhtamäki (2021, p. 330) highlight how configurations of people and things can be seen as "kind of affective affordances" where the digital artefact has a fundamental role "in the coming together of a suitable relational context for one's potential for affective resonance". Affective resonance with people and things guides affective attachment (i.e., we attach to things that resonate with us on an affective level), and thus the same digital artefact can invite different relational attachments. What is important here is *resonance* (Mühlhoff 2015), not so much what type of affects there are. This explains how the same digital (afterlife) artefact can figure in different techno-affective assemblages where, for example, some affects are oriented toward celebration of death (e.g., rejoicing in terror attack deaths), whereas others are oriented toward celebration of life (solidarity towards victims). Denigration of the dead and commemoration of the dead may thus involve and revolve around the same digital artefact (e.g., the live-streamed video artefact of the Christchurch attack) yet produce different digital afterlives as these are actualised in affectively different assemblages (see Harju and Huhtamäki 2024).

In this way, digital afterlife is tightly linked to memory and memory work. A complicated relationship exists between remembering and memory, and between memory and history (see Misztal 2003). Each instantiation of digital afterlife diversifies memory; while an individual digital (afterlife) artefact already adds to memory, as a techno-affective assemblage, the effects are multiplied due to relationality as digital afterlife assemblages circulate in social and digital networks, attaining new participants, but also due to recoverability, reach, and the speed of distribution, as well as the mutability of data. Several factors shape the affective landscape of digital afterlife: first, how data are arranged, composed, coded, manufactured, constructed, exhibited, or shared, and second, how these artefacts are received and experienced, incorporated into social actions and affective states of those relating to said data.

What matters in terms of affective outcomes are questions of who, how, where, and when. Remembering can have adverse effects on the 'mnemonic freedom' of the dead (Recuber 2021), "the ability to ensure that the stories we tell about ourselves, and the morals and meanings of our lives, get remembered by others in the ways that we want". This is in part due to relationality between individual acts of remembering and collective memory (Rosenthal 2015), and in part due to the unpredictability of digital afterlife that the analytic concept 'data afterlife' (Harju and Huhtamäki 2021) aptly captures. Memes of post-death data exemplify the workings of data afterlife well: they continue to evolve and have a life of their own. As memetic violations of death (Durham 2018), such memes inject into digital afterlife by remediating images of the dead (see de Vries 2022), thereby compromising not only mnemonic freedom but also privacy and other rights of the dead. It is thus essential

to ask who the remembering subject is, and how and where is the remembering carried out, around what kind of digital afterlife data, and for what purpose.

While remembering individual deaths might serve as 'rescue from insignificance' (Stokes 2015), posthumous persistence online is not always affirmative and can have "long-lasting consequences for both the bereaved and the deceased by mediating traumatic memory and keeping it 'alive' through the materialisation of memory (Harju and Huhtamäki 2024, p. 65), particularly pertinent for the marginalised and the vulnerable. Recuber (2021, p. 685) further points out how "the very notion of memory in digital technologies has already been racialized in a variety of ways. Digital spaces tend to privilege the memory and representation of some groups over others", causing harm (see also Sutherland 2017).

However, while post-death data (Harju and Huhtamäki 2021) reveal affective variability in digital afterlives in ways posthumous data cannot do, posthumous data testifying to a lived life remain a powerful element in digital afterlives for the political mobilisation of grief and channelling solidarity (Jiwani and Bernard-Brind'Amour 2023; Jiwani 2022; Morse 2023). Savin-Baden and Mason-Robbie (2020b) note how the socio-political and socio-cultural impacts of digital afterlives have attracted little attention: I argue it is in the context of memory and memory work where these effects can best be examined, particularly as they are embedded in the digital condition of today. For example, resistance and contestation through digital afterlife artefacts (Jiwani 2022) contribute to the archival documentation of deaths as history, simultaneously working towards achieving mnemonic freedom (Recuber 2021) of the dead through collective remembering.

In discussions of durability/fragility of the digital, the affective social dimension tends to be ignored: it is important to balance the ideas and values of remembering and forgetting and realise that sometimes the disappearance of digital afterlife data can offer relief and reduce harm (Harju and Huhtamäki 2024). It is important to account for the affective potential inherent to data (which remains independent of other factors) also for digital afterlife data that are forgotten, inaccessible, or out of sight—theorising digital afterlife as a techno-affective assemblage helps us to achieve that. We need to remind ourselves that as emergent, digital afterlives are partial, even aspirational in parts, and can never be grasped in their entirety.

5. Digital Afterlife as a Posthumanist Project—Concluding Words

This paper offers as original contribution a novel understanding of digital afterlife as a techno-affective assemblage. Thinking in terms of assemblage shows digital afterlife as a deeply relational process where the relational-affective outcomes constitute situated actualisations of digital afterlife, each iteration contributing to a plurality of digital afterlives.

Of the strongly relational accounts of being and becoming, the posthumanist approach takes the entanglement of humans with technology one step further. The underlying ontological tenets of posthumanist thinking, relationality and the decentring of the human as primary authority or source of action, agency, or knowledge, positions the human in a mix with technology where the sum is more than its parts. Digital afterlife only exists because of digital technology and, as such, is a relatively new phenomenon.

Perhaps surprisingly, research on digital afterlives is still lacking in posthumanist approaches (however, see af Segerstad et al. 2022), yet such a lens would greatly benefit theorisation of what digital afterlife might be and how it might become. Reflecting on digital afterlife, Reader (2020, p. 163) hints at this direction; they discuss how humans and technology coexist in a way that together they become "more than", that is, "the technology is not simply of instrumental importance, but [of] ontological significance". Being inherently rooted in the digital, digital afterlife is immensely vulnerable, and digital immortality, to this day, impossible. What benefits does a posthumanist lens bring to the concept of digital afterlife?

The critical orientation of posthumanism towards capitalism, platform control, subjectivity, and objectivation (also of the dead) are undoubtedly welcomed. As Davis (2020, p. 6) notes, an artefact has "politics, affects behaviour, and shapes the flow of everyday life",

and data materiality underpins the power structures and ideological design choices that, in turn, feed into the constitution and affordances of digital afterlife. Digital afterlife is thus riddled with politics not only through design choices but also due to different uptakes, the dynamics of which are inbuilt and stem from the materiality of digital afterlife. Iterative and continuously evolving, digital afterlives as techno-affective assemblages also feed into the increasing datafication of both the living and the dead.

The affective dimension of digital afterlife, linked to mediated rituals and grief practices, if also the more sinister relational outcomes, is inextricable from the materiality of data and other artefacts, platform logics and processes. As a process of becoming—seen as a relational change—digital afterlife implicates both the social and the material as these are mutually constitutive and generative of new ways of becoming and being. Importantly, these techno-affective assemblages as actualisations of digital afterlife vary in terms of affective orientation. The relational character of digital afterlife allows for de/re-contextualisation of the dead and their histories (here, we can think of the memetic renditions and the memefication of the dead), illustrating how digital afterlives are highly flexible, if also beyond control.

As digital afterlife does not exist outside the actualisations of relations and affective orientations, how do the processes of becoming in different assemblages link to and shape the memory of the dead, or more broadly, the subjectivation of both the dead and the living and the relations between these as they are entrenched in the current digital society? Similarly, digital immortality projects rely on the future becomings that take place in the potential relational assemblages with and among the living, and it is here where posthumanist thinking might help us navigate unknown future terrains.

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