A post qualitative inquiry into the disruptive effects of digital technology on death, meaning-making, and intergenerational memory and knowledge

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Abstract

This study is a post qualitative inquiry into how our engagement with digital technologies have transformed the ways we experience death and mourning, the effects on our meaning-making practices and the intergenerational transference of our collective memory and knowledge. The study draws on the work of philosophers such as Heidegger, Husserl, Derrida and Stiegler to think about death, mourning, the importance of meaning-making and collective memory and knowledge transfer. From this the study explores how we are 'thrown' into a surveilled algorithmic society (Rouvroy and Zuboff) that retain traces of Foucault's disciplinary societies and how the digital refigures our sense of space (Löw & Knoblauch and Bratton). As Wagner shows, mourning spaces are expanded to the virtual, though no new norms for mourning have really been adopted. This is related to Stiegler's conception of the recursive *doubly epokhal redoubling* and how it is disrupted – that is, we are unable to critically think about our engagement with the 'new' digital technology because our reasoning and behaviour have become increasingly short-circuited and automatised. Moving to the meaning-making practice of narrative identity formation in the digital sphere through the works of Faccennini and Halsema, it is argued that the digital fragments, hides and automates our identities. This has massive ethical implications in terms of Butler's thought on *giving an account of ourselves*, as well as in terms of mourning because, following Derrida, we need to identify and localise the remains of the dead to begin the work of mourning. Underlining the urgency of this, our individuation processes are increasingly disrupted, leading to a streamlining of identity. This is complicated by what Lawtoo calls *hypermimesis*, where we can no longer distinguish who is mimicking whom – the self or the virtual self. With these threads of thought, this study hopes to prompt the reader to think about our philosophies and practices of death and mourning in the digital age.

Keywords:
algorithms, collective knowledge, collective memory, death, Derrida, digital technology, disruption, meaning-making, mourning, narrative identity, post qualitative, Rouvroy, spatial refiguration, Stiegler

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Chapter 1

Introduction

1.1 Death in the time of algorithms

The contemporary upsurge in digital technology usage, particularly in social media, has had an immense influence on the ways in which people interact, as well as how social norms and practices are constituted. This has become even more pronounced as a result of, to name one example, the necessary use of technology during the novel coronavirus pandemic, marked by several hard lockdowns across the globe and social distancing measures. This has had at least two effects on people's lives that are of particular interest to this study. First, online life has increasingly been imported into ('real') offline life, effectuating an increase in what has been termed an 'extremely online' life, meaning that rather than 'extremely online people' being the exception to the rule, this has become the rule. To be 'extremely online' means to be closely engaged with and by and large absorbed in internet culture. People who are seen as extremely online usually believe that online posts and exchanges are very important. For the late philosopher, Bernard Stiegler, this poses several problems, key of which is an epistemological one as automation changes *how* social memory is synthesised; that is, how inter- and transgenerational memory is transferred. Second, and related to this, is how we deal with, think of and make meaning of death if our social memory has become replaced with or interrupted by automation. We may think here, for example, of the live streaming and recording of funerals/memorials for friends and family who are not able to join offline, in 'real' life, owing to pandemic-related restrictions.

Stiegler theorises technology in terms of *techné*, drawing on the work of the Anthropologist André Leroi-Gourhan who first argued that the organism and its technical milieu form part of the same 'whole' (see Stiegler, 1998:25-26). This means that tools and technologies are not simply created to extend ourselves into the world, but that we have *always been* technical. Rather than being techno-centric, Stiegler conceives of technology in an entirely different way, thus allowing for more holistic theoretical approaches to technology. This being said, he *does* argue that digitality has brought about a major shift, though the new practices that come with it, like being 'extremely online', are not necessarily 'bad' or 'good' – they are, rather, as Stiegler (2013:4) would say, *pharmaka*, meaning a poison and a cure at the same time. Whether they become curative or poisonous depends on the set of circumstances at any given point. Think, for example, of the 'online graveyard', the collection of online profiles present after a user's offline death. What happens with/to these profiles? What should happen to them? How do

they become part of or even cause changes in social (mourning) practices? Many people will, for instance, 'communicate' with the deceased via their social profiles by leaving a post-death message which can be helpful for the grieving process (Wagner, 2018:3). However, having the bereaved exposed to more negative elements, for example trolling – showing a *lack of norms* – has unhelpful effects for this process which can lead to the constitution of new, traditionally informed norms in certain online spaces (Wagner, 2018:7). To give just one further example, on Facebook one may nominate someone to manage one's online profile post-death, and even create mourning-specific spaces such as memorial pages which serve to expand these mourning spaces to the virtual spaces – that is, people can now mourn 'online' as well as 'offline' (Wagner, 2018:3). On the other hand, movements such as the Right to be Forgotten (RTBF) campaign encourages and fights for more access to our personal data collected by social media platforms, search engines and other digital technologies, even in death (Werro, 2020:1).

What becomes clear, then, is that it has become necessary to revisit philosophical questions of death and its place in the online environment and, specifically, to think about how we make sense of death and cultivate offline and online practices that allow for the transference of inter- and transgenerational memory, including our memory of mourning and remembrance. This has, however, been complicated by what Stiegler calls *disruption*, where automated processes have increasingly replaced both the collective and individual "deliberative functions of the mind" and short-circuited the process of intergenerational memory and knowledge transfer (Stiegler, 2016:25). And so, for Stiegler,

> In the midst of disruption […] there arises no new form of thinking capable of being translated into new organizations, new institutions, new behaviours and so on – through which an epoch properly speaking could be constituted. Behaviours, as ways of living, are being replaced by automatisms and addictions. At the same time, intergenerational and transgenerational relations are unravelling: transmission of knowledge has been prevented, and there are no protentions of desires that would be capable of bringing about a growth of transgenerational experience – of which ritual, religious or civil calendarities were hitherto the frameworks. (Stiegler, 2019:15)

Stiegler describes here the move into the age of disruption that he ascribes to our increasing entanglement with digital technology. Our behaviours and ways of living are being replaced by automatisms (reflex and alert) and addictions (a result of incessant reflex and alerts that are designed to give users 'dopamine hits'), guided by what Antoinette Rouvroy (2013:153) calls *algorithmic governmentality* – a term she uses to update Foucault's three traced forms of exercised power, namely sovereignty, discipline and biopolitics. Stiegler, however, notes another effect of this disruption – the "unravelling" of intergenerational memory because the intergenerationally transferred knowledge has been prevented.

In this study, I philosophically reflect on two interrelated aspects: first, the increase in time spent online and the effects that automation and digitisation might be having on our epistemological frameworks and practices and, second and relatedly, how this is affecting how we think and make meaning of death. To address the first aspect, I turn particularly to Stiegler who has most systematically grappled with this question in his oeuvre, paying attention also to other theorists who have contributed to what is termed 'critical algorithmic studies', including but not limited to Antoinette Rouvroy, Benjamin Bratton and Yuk Hui. To address the question of death, I refer to Martin Heidegger, Edmund Husserl and Jacques Derrida, all of whom inform Stiegler's work. My aim is to formulate how death, and practices of death, have been grappled with philosophically and also how they form part of intergenerational memory and knowledge. Furthermore, I consider if and how our frameworks and practices for meaning-making and making sense of death have been disrupted by automation and digitisation and, if so, how we might conceive of new social norms and meaning-making practices related to death. With this study, then, I initiate a dialogue between the question of death and digital technology.

In some ways this is not novel. Death, and how we make meaning of death, is a long-time concern of philosophy. For the early Greek philosophers, like Socrates and Plato, death was conceived of as the final separation of the soul and the body. Heidegger, on the other hand, argued that we anticipate death, and with this anticipation find reasons for living authentically through meaning-making practices. Such norms are typically transferred from one generation to the next, creating what Stiegler calls "long circuits … that intimate a range of connectivities that allows for the passage of thought across time" (Stiegler & Rogoff, 2010:n.p.). Stiegler argues, however, that the increase in digital technology usage and the replacement of "deliberative functions of the mind" – both individual and collective – by automated processes has short-circuited the processes of collective knowledge and memory transfer (Stiegler, 2016:25). In effect, this is a disruption of *noesis*, the passage through which new norms are established.

This, precisely, is what prompted my main research question: How has digital technology and automation disrupted our processes of inter- and transgenerational memory, including our meaning-making practices and our practices for making sense of death? More specifically I address, in the following chapters, each of these associated questions in turn: 1) How have philosophers conceived of death?; 2) What is the relationship between death, meaning-making, and intergenerational memory and knowledge transfer?; 3) What are some of the ways in which digital technology and automation have affected our epistemological practices and the collective synthesis of knowledge?; and 4) How has digital technology changed our meaning-making practices?

The main research objective of this study, as may have been surmised, is to determine some of the ways in which digital technology and automation have affected our epistemological practices and the collective synthesis of knowledge. In this study I outline how algorithms, digitisation and automation have changed our lives in unprecedented ways and what it means for our meaning-making practices around death and how memory and knowledge is transferred intergenerationally in, as Stiegler calls it, the age of *disruption*. To do so, I begin in Chapter 2 by outlining some of the ways in which philosophers have conceived of death. As they are some of the principal influences on Stiegler, I focus on Martin Heidegger's, Edmund Husserl's and Jacques Derrida's thoughts on death and other related concepts. In particular, I emphasise the manner in which each of them positions death ontologically, and how this is used by Stiegler to theorise meaning-making and memory.

Once I have established a theoretical framework, I address the third and fourth research questions in Chapter 3, namely: What are some of the ways in which digital technology and automation have affected our epistemological practices and the collective synthesis of knowledge?, and: How has digital technology changed our meaning-making practices? Here I focus on what Stiegler calls the "doubly epokhal redoubling" (2019:14), by which he means the shift to digitisation, automation and other computational technologies, and how these have changed the epoch in terms of the type of society, subjectivity, governmentality and space, specifically how we conceive of space (spatial refiguration). In other words, epoch, for Stiegler, is the stabilising process after, as Heidegger notes, finding oneself 'thrown' into the world. Mediatisation, one of the subprocesses of spatial refiguration identified by Löw and Knoblauch (2022), is particularly important because mourning is increasingly being mediatised. Wagner notes that new mourning norms are only new insofar that the traditional norms are in a digital space: hence, there are no new norms for mourning online. This leads again to Stiegler and his conception of *disruption*, that is, that the second stage of the doubly epokhal redoubling cannot occur, and so no new ways of living can be thought; similarly, no 'new' norms for mourning can be established, they are rather reconfigured and blended together with other norms or a lack of norms, which may lead to a loss of the intergenerationally transferred memories and knowledge.

Chapter 4, the final theoretical chapter, which will be followed by the conclusion, addresses the final research question, namely: How has digital technology changed our meaning-making practices? Of special importance is identity formation – as a *process* of meaning-making through individuation and transindividuation – which is discussed in the online context following Ricoeurian conceptions thereof, that is, narrative identity. This is of import because social media technologies employ such a conception in terms of the user 'telling the *story* of

their life'. Digital identity serves as a trace, a tertiary retention, and so digitised mourning practices consist of, among other things, posting on the deceased's personal social media pages. As concerns the phenomenality of the traces, the person is a living-dead, which affects transindividuation with the dead other through mourning. In this sense, mourning has been disrupted by digital technology. Patrick Stokes (2019) thinks about factors that need to be taken into account when establishing new norms for dealing with death's digital residues.

1.2 Can we think about death methodologically? Notes on the research approach and design

1.2.1 Immanent and transcendent frameworks for thinking about death

Most frameworks for dealing with death can be described as *transcendent*, meaning they deal with death in metaphysical terms that do not correspond to more scientific understandings of life because, as the term implies, they 'go beyond' the physical structures of being. In many religious frameworks, for example, transcendence is a means of overcoming the limitations of physical existence through the positing of an afterlife and an Absolute Being that exists beyond the physical realm. Such a divine being thus transcends the Earth and earthy knowledge and is often argued to transcend even human understanding which is limited materially. Some religions have a more *immanentist* framework, meaning the Divine is considered part of nature, as in pantheism (as we see, for example, in Spinoza's work).

Kant introduces another term, namely the *transcendental*, which for him is related to the condition of the possibility of knowledge itself. Accordingly, the transcendental is that which is a priori, which is to say knowledge that is not dependent on experience. Gilles Deleuze (1992) finds this problematic and wants to think not about the conditions of *possible* experience but the conditions of *real* experience. In other words, rather than thinking about the predetermined transcendental conditions of possible experience, Deleuze wants to think about the *genetic* conditions of real experience.

> Whereas [Immanuel] Kant argues that the transcendental unity of apperception is that which makes experience possible, Deleuze opines that what Kant is proposing is nothing more than the dogmatic image of thought, which cannot account for the genesis of real experience but merely explains how experience is conditioned and replicated. (Gray, 2018:477)

The first point to clarify is that Kant distinguished between three kinds of concepts: empirical, *a priori* (categories) and Ideas. Empirical concepts give us *real* knowledge of the world, for example a tree, a table, a notepad. The *a priori* categories are space and time which means they are applicable to all possible experience. Finally, Ideas *transcend* possible experience,

so this is the same as Plato's Ideas. Kant distinguished between these in order to think about what we can know objectively about the world and how we create concepts to do so. In *The Critique of Pure Reason* (1781) he argues we acquire knowledge in two ways: through perception or information from the senses, and by organising these perceptions into experience through concepts. For this, *pure thought* is *a priori*, or 'before' experience. It is also what he thinks conditions experience, meaning is the transcendental. For Deleuze, Kant's transcendental is also transcendent, and this is why he argues for a *transcendental empiricism* or immanentist principle. For Deleuze, '*presupposes* a certain distribution of the empirical and the transcendental' (1994:133, own emphasis), whereas he wants to think the immanent is an organising principle of reality. As the internal condition for philosophy itself, immanence is also that by which the concepts created by philosophy are measured (Spindler, 2010:150). This is his critique of Kant. For Spindler (2010:149), Deleuze's concepts of *event* and *plane of immanence* are highlighted. The plane of immanence distinguishes philosophical from religious thinking, and refers to

> … the horizon out from which thinking as such can take place, and thus constitutes the internal condition of thinking: it is a plane of immanence that constitutes the absolute ground of philosophy, its earth or deterritorialisation, the foundation on which it creates its concepts. (Spindler, 2010:149)

The plane of immanence shows but one purpose of immanence, that is, immanence as an ontological and foundational notion (Spindler, 2010:150). The other purpose of immanence is that it constitutes a "response, resistance, and positioning towards something else, towards its other" (Spindler, 2010:150). Although I do not draw heavily on Deleuze's work in this project, his work on immanence – and specifically his idea that concepts should not be understood as representing universal entities (soul, consciousness, reason, subject, object) but constitute *intensive events*, "where thought crystallizes into a specific formulation" (Spindler, 2010:151) that *responds* to the philosopher's problem – will be used. For example, Heidegger's *Dasein* responds to Being as problem (Spindler, 2010:151). What the plane of immanence is, then, according to Spindler (2010:155, own emphasis), "*is what enables meaning – the creation of meaning, against the background of the chaotic non-meaning that underlies all life".*

1.2.2 Post qualitative inquiry and selection

In this study I outline how algorithms, digitisation and automation have changed our lives in unprecedented ways ('algorithmic reason') and what it means for our social and meaning-making practices around death in, as Stiegler calls it, the age of *disruption*. This study is dispersive/disparate in nature as it investigates perspectives on death and meaning-making,

and how these themes coincide with digital technology. It would limit this study to research and report qualitatively through a linear argumentative pattern. By turning to post qualitative methodology, I hope to bypass this limitation. However, post qualitative research and research on post qualitative methodology are quite sparse and relatively new. *Post qualitative inquiry*, which for Elizabeth St. Pierre

> … [marks] a turn away from conventional humanist qualitative methodology, signaling the 'not yet' that is everywhere but indeterminate, not yet created, not yet individuated and organized into the definite – *immanent*. […] at the same time [it marks] a collapse and opening, the possibility of something different, what Derrida described as the 'future to come' and even 'people to come'. Writing can do this: 'writing has nothing to do with signifying. It has to do with surveying, mapping, even realms that are yet to come'. (St. Pierre, 2019:3–4)
>
> In an ontology of immanence, one becomes less interested in what is and more interested in what might be and what is coming into being. (St. Pierre, 2019:4)

Post qualitative inquiry is guided by an image of thought that "relies on at least the following: an *ontology of immanence*, *transcendental empiricism* and a particular *concept of concept*" (St. Pierre, 2019:4, original emphasis). This section has thus far provided a brief exploration into the first of these. The second, *transcendental empiricism*, refers to an empiricism not of "what is", but of that which is in becoming – that is, experience "before it is personalized, psychologized, and conceptualized" (St. Pierre, 2019:6). As regards the third, a particular *concept of concept*, St. Pierre (2019:7) notes that data analysis in conventional humanist qualitative methodology primarily looks for resemblance and similarities in data and that "identity rather than difference is the focus of that approach". The problem with this approach is that thought is, in Deleuze's words, "filled with no more than an image of itself, one in which it recognizes itself the more it recognizes things" (Deleuze cited by St. Pierre, 2019:7).

As this study is concerned with, among other things, an immanentist framework for making sense of death, it seems fitting to bypass the restrictions set by conventional humanist qualitative research and opt for post qualitative inquiry that allows for, indeed encourages, experimentation. Leslie Le Grange thinks about how post qualitative research can, for example, help us "*think differently* […] with alternative ways of knowing: knowing as embodiment, knowing as emotionality and apprehension, knowing through deliberate imprecision, and knowing as situated enquiry" (2018:11, Le Grange citing Law (2004:3)). I experiment with the ways of knowing, such as including personal fragments of my own encounters with death in my personal and social life in boxes. I also construct the chapters relationally, moving from one concept to the next so as to discover what lies in that movement or 'between' the concepts, and consisting of differing lines of argumentation and indefinite

rabbit-holing, where I can explore where the information allows for new thought to be generated. By employing a post qualitative inquiry method, I acknowledge that I am not separated from death and digital technology, but rather always interacting with these, in some way or another. Similarly, the literature review is embedded in the chapters.

In terms of the selection of philosophers' perspectives on death and other related concepts, I draw mainly on philosophers of the continental tradition. Although analytic philosophers of philosophy of mind have dealt with some of these issues related to death and meaning-making, this study approaches the problem of the effects of digital technology on how we understand and critique our relationship with the world and with death. Hence, it lies outside the scope of this study to include the ways that mainly analytic philosophers of mind deal with some of these issues.

Chapter 2

Philosophers' perspectives on death and other related concepts

2.1 Introduction

Since time immemorial, the question of death has haunted philosophical thought. Epicurus thought that death should not be feared, it is harmless as it is the end of consciousness and one can no longer experience pleasure or pain when one ceases to exist. Plato argued that death separates the immortal soul from the temporary body, and that life is for the pursuit of knowledge and virtues in preparation for the afterlife. Nietzsche thought that our mortality is to be embraced by affirming life through the creation of our own values, and he critiqued notions of an afterlife. Kierkegaard's existential philosophy emphasised the individual's subjective experience and awareness of their death, and importantly, how this allows for understanding ourselves as well as our relationship to the divine on a deeper level. Schopenhauer viewed death as the release from the suffering that is human existence, while Heidegger thought that death is a part of life because it is a possibility that we move towards, and in this way shapes our existence and implores us to create meaning. This is certainly not an exhaustive list and does not even mention contemporary analytic philosophers. It would take far more than a dissertation to explicate the entire philosophical lineage of death.

For the purposes of Chapter 2 – which intends to describe and explore how at least some philosophers have conceived of *death* – I limit my exploration to the views of two prominent philosophers of the phenomenological tradition, namely Martin Heidegger and Edmund Husserl, the deconstructionist philosopher, Jacques Derrida, and the late contemporary philosopher of technology, Bernard Stiegler. While I address death, my aim is also to address related themes such as meaning-making, and intergenerational memory and knowledge, because these are inextricably linked to how we make sense of death – that is, through mourning. Mourning is one of the ways we make meaning of loss, with a plethora of mourning practices emanating from various cultures and traditions. This, in turn, relates to intergenerationally transferred memory and knowledge, because *how* and *why* we make sense of death, our meaning-making practices, such as how we tell the stories of our lives, and our social practices, such as memorials or funerial processions, are transferred intergenerationally.

This chapter, which addresses my first specific research question, namely *how some philosophers have conceived of death,* is aimed at showing that death is not a static or a universal concept but is, rather, understood in many different ways by many different philosophers, each of whom brings a particular angle to our understanding of this multifaceted concept. Within the broader scope of this study, this chapter lays the groundwork for the concepts that are referred to throughout the rest of the study, where the focus is on how digital technology and automation have affected our epistemological practices and the collective synthesis of knowledge; that is, how digital technology has *disrupted* our conceptions of death and meaning-making, as well as how these are transferred intergenerationally.

2.2 Heidegger on death: *Dasein*, thrownness and the meaning of life

To determine how some philosophers have conceived of death, I opted for a post qualitative research method which means that this chapter ranges from clear delineations of thought, thinkers and arguments – about death, meaning-making, and intergenerational memory and knowledge – to indefinite rabbit-holing, prioritising relationality above a sense for logical flow, though not at its expense. With a post qualitative inquiry method I want to move from on concept to the next, and also explore that which is 'between' those concepts (discussed in Chapter 1). To provide a general outline, I start off with a discussion of Heidegger's concept of *Dasein* and how it *anticipates* death, moving to a discussion of Husserl and how his classical phenomenology would conceive of death, which I do vis-à-vis the work of Sara Heinämaa. Heinämaa, while approaching the topic of death with a certain sensitivity, employs Husserlian phenomenology to think about death, attempting to move away from Heidegger-centric views on this topic, while having some interesting points about time-binding which relate to one of the main thinkers I explore, namely, Stiegler. From here I move to Stiegler's and Yuk Hui's inter- and extrapolation of Husserl's thought on time-consciousness with a detour through the work of Derrida, especially his work on *grammatisation* and his unique perspective on mourning which he elaborates via the spirit and the spectre, or, *hauntology*, the *trace* and *survivance*.

One of Heidegger's most important conceptual contributions to philosophy is that of *Dasein*, which he uses to frame the experience that he understands as being singular to the human, including the form of consciousness known broadly as 'theory of mind' – for its awareness of selfhood and subjectivity – which includes, as a consequence, the subjective experience of mortality and the continual anticipation, albeit subconsciously a lot of the time, of death. To quote Heidegger – and I do so at length because it underlies the importance of making meaning amidst our anticipation of death:

> Everything we talk about, mean, and are related to is existent [*seiend*] in one way or another. What and how we ourselves are is also existent. Being [*Sein*] is found in thatness and whatness, reality, the objective presence of things [*Vorhandenheit*], subsistence, validity, existence [*Dasein*], and in the 'there is' ['*es gibt*']. (Heidegger, 2004:5)

Heidegger refers to everything that we perceive or experience (ourselves included) as 'existent', expressing the quality or attribute of the 'being-thereness' of these things. When we see something, like a person sitting on a park bench paging through a glossy magazine, we know that what we are perceiving *is there – exists*. We know that the person is there, or that the person *is here in our world*. There exists something that someone does, which is what we call 'sitting', we know that magazines are present in the world in some way or another ('thatness'), and that they can have glossy pages – we even know that we can perceive something as being 'glossy' ('whatness'), and that 'glossy' is also an attribute we know to exist in our world. Whether we ourselves are strolling through the park while seeing this person or perceiving them from across the street through our apartment window, we also know that we ourselves are *here in the world*, and more specifically, in the park, or in our apartment looking through the window at another such being, an *other*. When we blink our eyes and no longer perceive them or their glossy magazine for that instant, we also somehow know that they will still be there when our eyes open ('subsistence'). We know that the magazine is an object – some *thing* – present in our world, and that there are other such things that are present, or as Heidegger calls it, *present-at-hand* [*Vorhandenheit*]. It is of note here that Heidegger refers to the totality of things in the world that we can use and interact with as *ready-to-hand*. Heidegger continues:

> In which being is the meaning of being to be found; from which being is the disclosure of being to get its start? Is the starting point arbitrary, or does a certain being have priority in the elaboration of the question of being? Which is this exemplary being [*Seiende*] and in what sense does it have priority? […] This being [*Seiende*], which we ourselves in each case are and which includes inquiry among the possibilities of its being, we formulate terminologically as *Dasein*. The explicit and lucid formulation of the question of the meaning of being requires a prior suitable explication of being (*Dasein*) with regard to its being. (Heidegger, 2004:6, 7)

Here Heidegger questions what it means to *be*, and what it means to be this *thing* that is able to know that it exists, that a world exists, that there exists things in the world and that all these things can continue to exist even when this being that knows that it exists does not perceive it – and so we see here that *Dasein* is important for Heidegger for making sense of being and existence.

Dasein stands apart from other beings owing to the unique characteristic "that in its being this being is concerned *about* its very being" (Heidegger, 2004:10), which means that it is preoccupied with its being – in a singular way that is different from how other beings such as animals experience life, although we do know from more recent studies that while other animals may not have consciousness in the same way humans do, some species do have theory of mind to some extent. Like Heidegger, *Dasein* also questions what it means for it to *be*, and what it means to be this *thing* that is able to know – and also able to question *why* – it, the world and all other things in the world, exist, but only for a time. In other words, we (*Dasein*) have the capacity to contemplate and reflect on our existence, and by existing, always-already possess an inherent relationship with our own existence. In this inextricable relationship with our (*Dasein*'s) own existence, it is for Heidegger essential to acknowledge that our understanding and meaning-making of our own existence (ontological comprehension) can only be achieved through the act of being; that is, through the real-life (ontic) experience of existence itself. In Heidegger's words then, "[understanding] of being is itself a determination of being of *Dasein*" (Heidegger, 2004:10). In short, understanding and making meaning of *what* and *why* we exist, for Heidegger, relies fundamentally on our lived experience or existence.

> This characteristic of Dasein's Being – this 'that it is' – is veiled in its 'whence' and 'whither', yet disclosed in itself all the more unveiledly; we call it the '*thrownness*' of this entity into its 'there'; indeed, it is thrown in such a way that, as Being-in-the-world, it is the 'there'. The expression 'thrownness' is meant to suggest the *facticity of its being delivered over*. The 'that it is and has to be' which is disclosed in Dasein's state of mind is not the same 'that-it-is' which expresses ontologico-categorially the factuality belonging to the presence-at-hand. […] The 'that-it-is' which is disclosed in Dasein's state-of-mind must rather be conceived as an existential attribute of the entity which has Being-in-the-world as its way of Being. (Heidegger, 1962:175)

Thrownness refers to *Dasein* being 'thrown' into the world it inhabits, in the sense that it has no knowledge or understanding of *why* it exists in the world, what its *purpose* is, only that it is, in fact, *in the world*. With *thrownness*, Heidegger attempts to explain why we do not know or understand *why* we exist in the world – we only know that it is the case. This is important for my purposes because it speaks directly to meaning-making. How can we make meaning out of thrownness? In terms of perceiving the person on the park bench, for Heidegger, "[i]t is already implied in Being with one another, as *thrown* Being-with-one-another in the world" (1962:219). In the world we find ourselves thrown into, we find that we exist among others and other things.

However – and this is crucial for Heidegger – our existence will end with death; bar future inventions we all have to eventually, and most certainly, die. And we *know* this, and we may

not know when or where or how, but we always know of a (certain) possibility that death will come and that our existence will end. To quote Heidegger again – and I do so at length as this is a key passage to understanding Heidegger's views on death:

> As long as Dasein is, there is in every case something still outstanding, which Dasein can be and will be. But to that which is thus outstanding, the 'end' itself belongs. The 'end' of Being-in-the-world is death. This end, which belongs to the potentiality-for-Being – that is to say, to existence – limits and determines in every case whatever totality is possible for Dasein. If, however, Dasein's Being-at-an-end in death, and therewith its Being-a-whole, are to be included in the discussion of its possibly *Being-a-whole*, and if this is to be done in a way which is appropriate to the phenomena, then we must have obtained an ontologically adequate conception of death – that is to say an *existential* conception of it. But as something of the character of Dasein, death *is* only in an existentiell *Being towards death* [*Sein zum Tode*]. The existential structure of such Being proves to be the ontologically constitutive state of Dasein's potentiality-for-Being-a-whole. Thus the whole existing Dasein allows itself to be brought into our existential fore-having. But can Dasein also exist *authentically* as a whole? How is the authenticity of existence to be determined at all, if not with regard to authentic existing? Where do we get our criterion for this? Manifestly, Dasein itself must, in its Being, present us with the possibility and the manner of its authentic existence, unless such existence is something that can be imposed upon it ontically, or ontologically fabricated. But an authentic potentiality-for-Being is attested by the conscience. And conscience, as a phenomenon of Dasein, demands, like death, a genuinely existential Interpretation. Such an Interpretation leads to the insight that Dasein has an authentic potentiality-for-Being in that it wants to have a conscience. But this is an existentiell possibility which tends, from the very meaning of its Being, to be made definite in an existentiell way by Being-towards-death. By pointing out that Dasein has an authentic potentiality-for-Being-a-whole, the existential analytic acquires assurance as to the constitution of Dasein's primordial Being. But at the same time the authentic potentiality-for-Being a-whole becomes visible as a mode of care. And therewith the phenomenally adequate ground for a primordial interpretation of the meaning of Dasein's Being has also been assured. (Heidegger, 2004:276-277)

What Heidegger is saying here is that death is immanent to the structure of *Dasein:* a *possibility* that *Dasein* is concretely faced with all the time, whether consciously or unconsciously – that is, death is an *expression of* Dasein. *Dasein* is, as such, a *being-towards-death*, which Heidegger in turn characterises as a *Being towards a possibility*. In this way, for Heidegger, every aspect of our existence is guided by this inevitable 'possibility' of death – *Dasein* is, quite literally, moving towards its own demise, knowingly so. This, to some extent, answers how we can make meaning out of thrownness.

While many philosophical traditions view death as the endpoint of life, or perhaps even the antithesis of life, Heidegger offers a unique contribution that explores death as a possibility – not a possibility in itself, as death is the end of consciousness, but the opening up of a

possibility toward ethicality which, for many phenomenologists, centred on the idea of *authenticity*. Death thus contains for *Dasein* the potential to be something other than a mere abstract thought far down the line of life, or a morbid fixation. Instead, according to Heidegger, death is for *Dasein* part of its ontological structure. For this reason, Heidegger distinguishes between *expecting* – which is a more passive *waiting for something to happen or to be actualised* – and *anticipation*, which is, to quote Heidegger, "the closest closeness which one may have in Being-towards-death as a possibility, is as far as possible from anything actual" (1962:305). In other words, *Dasein* does not *expect* death, *Dasein anticipates* death, meaning that death as a possibility does not give *Dasein* anything to be actualised, in the sense that the understanding of death is, for Heidegger, "the possibility of the impossibility of any existence at all" (1962:305). It is for this reason that death is not characterised by its involvements like the ready-to-hand – if we die and cease to exist, we do not have the capability to interact with existent objects, the world or with others, because we will no longer have the characteristic of *being-there* to perform such 'external' interactions. And so, death reveals itself to be *Dasein*'s own-most possibility (death is to each their own) which is non-relational, death is a deeply personal and intrinsic apprehension of its being. Zohreh Shariatinia describes Heidegger's view on death as follows:

> Heidegger […] considers that knowledge about death leads to understanding of [*Dasein*] and that knowledge of [*Dasein*] will result in knowing the universe. Heidegger knew death as the full characteristics of humanity, and in his view, only the animal was destroyed and deprived of the property of death. (Shariatinia, 2015:93)

Because of its thrownness, and especially because of its anticipation of death, *Dasein* has an imperative to make meaning of its existence. As Shariatinia goes on to say:

> Heidegger believed that in human thought and the human collective, man lost the ability to think and interpret and became unoriginal […] and became a mere function of 'human'. […] the dictatorship of individualism takes on a type of richness and […] is a mixture of all human history. (Shariatinia, 2015:95)

For Heidegger, the non-relational character of death individualises *Dasein* and therefore makes manifest the failure of Being-with and Being-alongside when *Dasein*'s own potentiality-for-Being is the issue. Being-with and Being-alongside others and objects in the world does not alleviate this 'awareness of its mortality' (*anxiety*) for *Dasein*. And then, because we anticipate death, or because we are always aware of our finitude, *Dasein* is individualised from *the One* – and so we can pursue an authentic mode of existence – which here means the authentic act of meaning-making outside of frameworks like religious ones. Heidegger's conception of *the One* is what Shariatinia refers to when discussing Heidegger's belief that humans became unoriginal and unable to think and interpret because of, in a general sense,

human thought and the human collective. *Dasein* is always-already a part of *the One* (also known as *das Man*, *the they*, or *the everyone*), this overgeneralised '*being-human*ness', which for Heidegger, is an inauthentic mode of existence. Only through death – which is to each human within the human collective (*the One*) their own – can *Dasein* pursue its own individualised (authentic) mode of existence, and in this way, in a sense, regain its originality in its ways of meaning-making and then the meaning that it made.

Early morning on Boxing Day, my partner, his parents and I awoke with the news that my brother-in-law had passed in his sleep. We had spent Christmas day at their home. Thrown into grief, the family began making funeral and other arrangements before the New Year.

In short, then, because we anticipate death, we are presented with *the possibility* of pursuing an authentic mode of existence which itself contains the potential for creating meaning outside of inauthentic structures – and in this way, we find reasons for living. Importantly, these reasons for living, which contain an element of sociality, are however, for Heidegger, a somewhat individual affair. To find reasons for living, we might use myth and religion to explain life in the anticipation of death, though this remains inauthentic living for Heidegger because the moment we frame death according to myth and religion, our metaphysics no longer aligns with the (scientific) principles that guide this world – and so Being becomes *transcendent* because it goes beyond what we can account for with the knowledge we have. Instead, Heidegger is arguing here that *Dasein* has to come to the realisation that life contains death – that is, that *death is immanent to life*.

2.3 Husserl, consciousness and time-binding

Husserl, according to Sara Heinämaa (2015:111), distinguishes between two kinds of conscious and self-conscious subjects – i) "subjects who are conscious of themselves as mortal beings", and ii) "subjects who lack the consciousness of themselves as mortals". The first relates especially to that conscious being Heidegger calls *Dasein*. However, similar to the way Shariatinia describes Heidegger's view – that "only the animal was destroyed and deprived of the property of death" (2015:93) – Heinämaa interprets Husserl as also excluding the animal from this conception of being, being self-conscious and being able to experience themselves as mortals – 'the category of persons' – but extends this to human infants as well, citing that infants and animals cannot (not yet, at least, in the case of infants) experience themselves as a node in the spectra of intergenerational memory and knowledge transfer. In Heinämaa's words, infants and animals cannot experience themselves "as a member of a generation that is connected to other generations and to an open totality of generations by the means of narration and writing" (2015:111). We can deduce here that by means of language

one can convene with the deceased, or as a deceased convene with the living – by listening/reading and narration/writing that have been captured. To quote Heinämaa on the Husserlian emphasis on intergenerationality:

> The cultural world, inaccessible to the infant and to anyone who is unaware of [their] own mortality, is a universe of entities and processes in temporal becoming and generative succession. Already the natural world is an open, non-closed whole of unexpected events and unimagined things, but the openness of the cultural world is of a different magnitude since each of its parts refers to a history of practisers and users and to a multi-unit of such histories. The possibility of becoming a member of a generative community and consciously participating in its activities is open for the infant, but the realization of this possibility requires that the infant consciously grasps the factuality of [their] own natality and the inevitability of [their] own future death. (Heinämaa, 2015:113)

With this, Heinämaa highlights an aspect somewhat missing from Heidegger, namely the importance of being part of a society, a culture and history more generally. Thus, the individual is not simply a lone entity with its own past and future, but a node in a 'generative community' that itself forms part of a longer history, some of which will have been transferred from generation to generation. Heinämaa is here drawing attention to the importance of intergenerational knowledge transfer and intergenerational memory for Husserl, which, to a degree, complements Heidegger's thought on the anticipation of death and meaning-making practices because reasons for living and the epistemological practices of the preceding generation can be learnt, adopted or adapted for the current or following generation. In other words, some of our knowledge and memory can exceed our own existence and is therefore transferred to the next generation, similar to how some of the knowledge and memory of preceding generations exceeded their existence and was transferred to our generation.

Heinämaa (2015:102) argues that the study of death and mortality in phenomenology has been dominated by Heidegger's hermeneutical/existential phenomenology because of a long-held accusation that Husserl's classical phenomenology disregards the phenomenon of death. However, Heinämaa (2015:107) posits that the Husserlian phenomenological argument does in fact address death because it is, in the main, about the meaning of a possibility, and importantly, it addresses the temporality of consciousness (which is discussed in the following section, specifically the concepts of *retention* and *protention*). A person's understanding and anticipation – in the Heideggerian sense – of their own death is not more meaningful than the person's experience of the death of another person – the difference here lies in the understanding of the *possibility* of one's own experience of it: "I can only understand the meaning of death by facing the possibility of my own death, and by studying what implications this 'impossible possibility' has to my life here and now" (Heinämaa, 2015:107). This is a

similar line of thought to the way Shariatinia interprets Heidegger in terms of the death of another – that both Husserl and Heidegger view the death of another to not be a possibility of one's own, and the *meaning of death* therefore only one's own. Shariatinia writes:

> Heidegger's analysis of death has no place in understanding, and understanding can only be achieved through the appearance of respect and treatment. Because the dead are not [Dasein], […] the treatment of and respect for [Dasein by the dead] have no meaning. […] In fact, funerals protect life against death and death from their consciousness. […] Heidegger knows that those experiencing the death of others are unable to understand the ontology of death. We understand that only through death does existence come to an end; however, its depth of understanding by others is not allowed, and Heidegger says we can only be the 'next' dying person; however, it deprives us of the authentic experience. (Shariatinia, 2015:95).

Heinämaa's description of Husserl's emphasis on intergenerational knowledge transfer and intergenerational memory is related to his conception of time-consciousness, as Lanei M. Rodemeyer describes:

> Each individual object (each unity, whether immanent or transcendent, constituted in the stream) endures, and necessarily endures – that is, it continually exists in time and is something identical in this continuous existence, which at the same time can be regarded as a process. Conversely: what exists in time continuously exists in time and is the unity belonging to the process as it unfolds. The unity of the tone that endures throughout the process lies in the tonal process; and conversely, the unity of the tone is unity in the filled duration, that is, in the process. Therefore, if anything at all is defined as existing in a time-point, it is conceivable only as the phase of a process, *a phase in which the duration of an individual being also has its point*. (Rodemeyer, 2006:78, own emphasis)

Not only does Rodemeyer provide an apt and general way to understand Husserl's thought on time-consciousness, but she also describes an entry-point into intergenerationality by indicating that, for Husserl, "the duration of an individual being also has its point" (Rodemeyer, 2006:78) within the greater scope of the phases of passing time, or then, almost analogously, an individual person as a point within the greater scope of phases/generations on phases/generations in time.

2.4 Stiegler on memory, knowledge and the future (with a detour via Husserl and Derrida)

For Stiegler, who worked on, amongst other things, our relationship to technics and especially how we make memory and knowledge and transfer them to the following generations, Husserl's theory of time-binding was hugely important for developing his own work on intergenerational memory and knowledge transfer, as well as how these have been disrupted

by digital processes. In particular, he draws on Husserl's notions of retention and protention. Husserl writes:

> The experience that in each case is actually lived through affords itself, entering anew into the reflecting focus, *as* something actually lived through, as 'now' being. But not only that, it also affords itself as just *having been* […] We consider it self-evident that they actually were and, to be sure, were actually lived through by us, when we are 'still conscious' of them – in the immanent reflection within *retention* (the 'primary' remembering) – as 'just having been'. (Husserl, 2014:139-140)
>
> […] with respect to *anticipation*, the expectation that looks ahead. What first comes into question here is the immediate 'protention' (as we might put it), the exact counterpart to the immediate retention […] At the same time, what is intuitively expected, what (in looking ahead) one is conscious of as 'coming in the future,' has in this way the meaning of something that will be perceived (Husserl, 2014:140)

Yuk Hui, one of the most important interlocutors of Stiegler's work, understands Stiegler's use of Husserl's *primary retention* to refer to what is retained from *the primal impression*, whereas *primary protention* refers to what is anticipated (in a general sense). Together, these three 'moments' (or one moment with three aspects) "form what is known as triple intentionality" (Hui, 2018:136). Husserl introduced this triple intentionality to provide a model of time-consciousness (Hui, 2018:136). Hui explains Husserl's distinction between primary (or the first level of) retention and protention as follows:

> We will only illustrate this with a simple example of a melody: the melody is presented as a stream of consciousness, where every 'now' passes into 'the already' and is added to the stock of retention, while every anticipated 'not-yet' [protention] becomes a 'now' and is thereby fulfilled before passing into retention. For Derrida, the play of retention and protention is the source of the deconstruction of the 'metaphysics of presence,' since every consciousness of the 'now' demands a delay [*retardment*, *Nachträglichkeit*], for example the Now B is constituted by the retention of Now A and the protention of Now C. (Hui, 2018:136)

The first level presupposes a second which Husserl refers to as recollection and anticipation, but which Stiegler renames *secondary retention* and *secondary protention*. *Secondary retention* and *secondary protention* refer to a memory of the past which is represented by its being recalled by imagining the memory (Hui, 2018:139). To return to Hui's example of the melody, every individual note we hear in a piece of music – our *primal impression* thereof – is influenced by what precedes and follows it, or in other words, the B is 'coloured' by the A preceding it and the C following it. This process is incremental and relies on every previous retention, so that some notes are immediately associated with a melody and a memory of hearing that tune (secondary retention).

At age 13, a dear friend died by suicide at the end of the school year. At the memorial service most of her peers dressed in the school uniform. I sometimes think of her 9th birthday party. Or how she mispronounced 'pie' in Afrikaans. News of her death came by way of a status update on an instant messaging app.

This links particularly well with Rodemeyer's general descriptive statement that "if anything at all is defined as existing in a time-point, it is conceivable only as the phase of a process" (2006:78); that is, in the same way that an individual note (B) in a piece of music is influenced by the preceding notes (A) and the notes that follow it (C) to form a melody, a time-point (B) in a unity is influenced by the time-points preceding it (A) and the time-points following it (C) to form a phase; and so it is in the same way that notes in a melody can only be conceived as a phase in a piece of music that time-points can only be conceived as a phase of a process – with the process itself already being a unity and vice versa. In terms of intergenerationality, a generation (B) is influenced by the preceding generations (*collective retention* A) as well as the generations following it (*collective protention* C) through intergenerational memory and knowledge transfer. This includes, but is not limited to traditions, myths, religions, as will be seen in the discussion of *tertiary retention* and *protention* that follows.

Besides making sense of life by sorting through impressions and experiences and relying on memory to help categorise new information to be used to project into the future, humans have developed means of *exteriorising* memory. This ranges from sculptures to books to elaborate cultural ceremonies, which include rituals and practices around death and mourning. More recently, humans have begun to exteriorise their knowledge and memory into digital objects, although, as Stiegler himself says numerous times, humans have *always* exteriorised their knowledge and memory in some way or another. This is what Stiegler calls *tertiary retention* and *tertiary protention*, that is to say, processes that are dependent upon a relation to objects or experiences of objects such as "looking at a sculpture, a painting, watching television, and so on" (Hui, 2018:138). For example, when we look at a photograph of a loved one who has since passed, we conjure up the memory that resides within the object. We can also think here of a family recipe for a food item. This recipe is a tertiary retention of the knowledge: which ingredients, how the item is to be prepared, for example, as well as the memories of past generations on how to prepare it, perhaps for specific occasions, but also that it is of significance to be transferred to the next generation. Another example can be a performative act, such as singing at a funeral while the deceased's body is lowered into the ground. In this performative act a memory is stored. *Tertiary retention and protention* is the third aspect that leads to us experiencing ourselves as time-binding agents (*primary retention and protention*

the first, *secondary retention and protention* the second), which is, for Stiegler, deeply tied to Derrida's concepts of *grammatisation* and *supplement*.

Stiegler's work on grammatisation, which for him is "the history of the exteriorization of memory in all its forms: nervous and cerebral memory, first linguistic, then auditory and visual; bodily and muscular memory; biogenetic memory" (2010: 71) – is based on the work of Derrida and Sylvain Auroux. Derrida writes on the *supplement*:

> If supplementarity is a necessarily indefinite process, writing is the supplement par excellence since it marks the point where the supplement proposes itself as a supplement of supplement, sign of sign, *taking the place of* speech already significant: it displaces the *proper place* of the sentence, the unique time of the sentence pronounced *hic et nunc* by an irreplaceable subject, and in return enervates the voice. It marks the place of the initial doubling. (Derrida, 1997:281)

Orthographic grammatisation helps us to store and transfer our oral knowledges via writing; because the orthography has been normalised, it enables us to understand the text that has been written. We can write down our thoughts (internal speech) because writing itself *supplements* our thoughts – because a supplement serves to aid the 'original' (Jack Reynolds, 2021:n.p.). The supplement is always ambiguous – "whether the supplement adds itself […] or whether 'the supplement supplements'" (Derrida, 1997:144 in Reynolds, 2021:n.p.). For example, when we think 'I need to go to the local greengrocer tomorrow for some cabbage and carrots' and then write it down on a piece of paper, we ourselves do not have to retain that thought because it is retained on that piece of paper through writing. In this way writing supplements our thought, or it takes the place of our thought. We are able to write something that we can understand because of grammatisation, or because it has been normalised by formalising the language of that inner speech of the thought. From this it is clear why Stiegler draws upon the concepts of *supplement* and *grammatisation* for the development of *tertiary retention,* as the representation of the representation-based experience serves as a supplement: writing itself, the supplement par excellence, is an example of *tertiary retention*. So then, by writing down that I need to get some cabbage and carrots from the local greengrocer, I am externalising that thought/memory by writing it down on a piece of paper. The piece of paper as well as the writing on the paper serve as a means for me to retain that information so that I can remember to go to the local greengrocer for some cabbage and carrots. However, I need to put this piece of paper that retains this information for me in a place where I won't forget where I have externalised this memory. I need to 'archive' it so that I will know where my archived thoughts and memories are if I need to be reminded of these tertiary retentions in the future. It is a way for us to mediate between working memory and long-term memory which may exceed our own existence. Archivation, then, is what Stiegler

calls *tertiary protention*. For Hui, *tertiary protention* serves as "an archive for the future" (2018:150), where the exteriorised memories of the representation-based experiences (tertiary retentions) are selected and archived. This is crucial for intergenerational memory and knowledge transfer as these processes are essential for stabilising our meaning-making practices and frameworks across time; that is, for producing norms. Hui writes:

> [F]or Stiegler […] it is crucial to recognize that a representation such as a painting is *also* an exteriorized memory, because this 'third memory' (in addition to the DNA molecule and the memory of the nervous system) in fact has a functional necessity […] in order to function as a supplement to the retentional finitude of humans and traces. (Hui, 2018:138)

In other words, for Stiegler, tertiary retention refers to an exteriorised memory that functions as a *supplement* to the retentional finitude of humans, under which social and meaning-making practices can be included: *social practices as exteriorised memory that is supplementary to the retentional finitude of humans*, or in other words, traditions, myths, religion, etc. As new epochs emerge, this exteriorised memory, which is translated "into religious, spiritual, artistic, scientific and political movements, manners and styles", provides the material from which to forge "changes in the very foundations of knowledge" (Stiegler, 2019:14). Here, exteriorised memory serves a positive function: to create links between the past, the collective and the individual. This is important for the collective production of *protentions* – what Stiegler calls *collective protentions* for short – because tertiary retentions can exceed our existence, meaning that the memories and knowledge that are exteriorised can be accessed by future generations. This also includes the contestation of inherited ideas, but the point is that there is a narrative arc to this process. It is important to note that the exteriorisation of memory in itself is not something negative. Stiegler's motivation for the importance of intergenerational meaning-making practices lies in exactly these *new ways* of living brought about by a change in technical systems *and* their being informed by the knowledge of the preceding epoch in regard to, for example, traditions, myths, religions and so on. In other words, we need intergenerational memory or knowledge to help us make sense of newly acquired knowledges and skills. This includes our knowledge of death and the frameworks of meaning we have to make sense of death and to deal with the dead (mourning). This is not to say we need tens of generations of knowledge – it is important for these 'memories' to also be transformed – but, as Stiegler argues, without any such knowledge meaning-making becomes far more existentially burdensome.

My grandfather passed away on 22 April 2021. He had been ill for a couple of years with Parkinson's disease. We took trips to Brits, Buffelspoort and Marikana, and he shared some

of his memories with us, like how he and my grandmother met, and he showed me where his butchery was all those years ago.

I return to grammatisation, which in general refers to the process by which memory is extended – through language, writing, social practices and so on – and then formalised and standardised as technical systems. In other words, grammatisation involves the extension of thought into words and orality and, in turn, into cave drawings, writing, painting, and the like, as well as the concomitant establishment of rules, conventions, norms and practices of language and writing (language and writing have formal and standard norms to ensure, for example, the efficiency of communication). This happens by way of tertiary retention and protention – an externalisation of the retentions (or memories) of how we use language and writing to communicate, among other things. Grammatisation is an ongoing process where there will always be established rules, conventions, norms and practices (B) which are informed by the new use and function (C) as well as the previous incarnation (A). Or, in the words of Stiegler, "the mnemotechnical mediation of *individuation*, as the inheritance and interpretation of a pre-individual past, organizes the conditions of individuation" (2014:56, own emphasis). In this way – through language and writing – we are able to acquire and transfer knowledge. This form of grammatisation allows us to communicate more effectively, however, it also leads to rigid norms and hierarchies to the detriment of unbridled, or at least creative, expression, for example identity formation and how (individualised) meaning is expressed. For Stiegler, then, "[grammatisation] is a technical process of individuation which simultaneously supports and undermines *psychic* and *collective individuation*" (2014:58, own emphasis).

The psychic individual – the 'I' – adopts a collective tradition, which may be through inheritance or acknowledgement of others' traditions (Stiegler, 2011:164-165; 2014:50-51). Stiegler uses the word *adoption* because the psychic individual can recognise and identify itself in a past other than itself or its ancestors. For example, certain people from South Africa can recognise and identify themselves both with South African culture and with their past culture which would be of a European origin, and so they *adopt* that past which is other than themself or their ancestors. For Stiegler this is true for how we engage with the technical system as well. In other words, it is an active engagement with previous generations as well as the technical system/s. Stiegler contrasts this with *adaptation*, where we "must […] *adapt* to a [capitalist] system" (2011:85, original emphasis), or, in other words, a passive capitulation to the system and its technologies. The psychic individual can only be conceived of in relation to the collective – the 'we'. 'I', in other words, is not static – as in *Dasein* – but a process of individuation, that is, the tendency to become one and indivisible. For Stiegler, however, this is never a fully accomplished process. Unlike theories of homeostasis, Stiegler draws on

Gilbert Simondon's theory of individuation and ontogenesis to argue, instead, for a metastable equilibrium. To give a very simple example of how this works we can think of H_2O which can remain in a state we know as water in any period of *relative stability* or metastable equilibrium. However, when water is exposed to heat for a duration of time and reaches boiling point, a disturbance will cause the system to pass from one state to another. In this case, water will evaporate into a gaseous state, steam. On the other hand, when water is exposed to cold temperatures and reaches its freezing point, it passes from a liquid state to a solid state, ice. Similarly, Stiegler understands a psychic individual as usually being in a relatively stable state, although interactions with the world can cause a disturbance in a person's metastable equilibrium. Moreover, for Stiegler, as for Simondon on whom he draws, individuation is always-already *transindividuation*. In other words, psychic individuation is the process by which an individual *becomes* an individual. This takes place when a person interacts with and experiences the world, which includes encounters with other individuals, communities, cultural artefacts and traditions, and tools and technical objects, including computers and their platforms, such as social media platforms. Through these encounters, the individual acquires a sense of identity and subjectivity because they transindividuate alongside the collective and the technical system, that is, their *becoming-themself* is greatly influenced by that into which they are 'thrown'.

When these processes of individuation and transindividuation become perturbed for some reason, the psychic individual could experience a fluctuation in the health of their subjectivation processes. For example, a person might become 'one' with a collective because of an overinvestment in a particular identity which may constrain future individuations in some way. A healthier subjectivation process would integrate the collective with a countertendency towards individuality which is distinguishable from the collective, though this can itself become amplified. In other words, the psychic individual's identity and subjectivity is never in a fixed state, but rather fluctuates between the becoming-one and becoming-unique, which at any point can also tend towards a certain amount of stasis – though this can always be disturbed again. This relates to Heidegger's conception of *Dasein* and how death individualises *Dasein* in terms of meaning-making. However, rather than being static, *Dasein*'s authenticity (if these ideas were to be put in a blender) is always in flux, moving between states of authentic (becoming-unique) and inauthentic (becoming-One) existence.

2.5 Death, mourning and meaning-making: Regarding the *trace* and collective protentions

Collective individuation is the same process as psychic individuation, but in terms of the 'we' or the coming together of individuals forming a collective that individuates (together) (Stiegler,

2011:164-165; 2014:50-51). Thus, the 'I' is just as much constitutive of the 'we' as the 'we' is of the 'I'; that is, individuation is always-already collective (transindividuation) (Stiegler, 2011:164-165; 2014:50-51). The process of collective individuation relies on generating and sharing artefacts, or in other words, exteriorised memories (*tertiary retentions*) that are unique to the collective. If we think of any culture, there are specific meanings symbolised/represented by certain artefacts, wherein memory has been exteriorised through their specific relationship to technical objects and systems (Stiegler, 2011:164-165; 2014:50-51). The connection between (psychic) individuation and collective individuation is a pre-individual system possessing positive conditions for effectiveness that belong to what Stiegler calls *retentional apparatuses*. Retentional apparatuses arise from a technical system which is the condition of the encounter of the 'I' and the 'we', referring to processes and structures/institutions that enable the retention of memory for the individual society, for example writing, libraries and archives.

The individuation of the 'I' and the 'we', then, in this respect, is also the individuation of the technical system. For example, the pyramids in Egypt are technical artefacts in which memories of Ancient Egyptian culture are embedded, including their specific rituals such as mummification, as well as their developments in art, science, religion, myth and philosophy. So then, in the same way that the 'I' and the 'we' individuate, so does the technical system. All (technical) objects are inserted into a technical system as it constitutes their existence. Retentional apparatuses, that is, the technical object or system into which retention is externalised or written, which arise from technical systems, spring forth from the processes of grammatisation, which in turn grows out of the process of individuation of technical systems. We can think here of a new daily planner as an example of a retentional apparatus. The daily planner is a technical object that, through its use of the Gregorian calendar as the norm according to which it is laid out, for example, forms part of a technical system, which in this case can be the size of the pages, the layout of the margins, and the language used, among other things. By making our notes in this daily planner we are externalising memories and knowledge (tertiary retention) into this technical object through writing, which itself is a form of grammatisation. By continually engaging with the daily planner, there will be a point at which it will change states, this may be from 'new' to 'used', for example. In this way, the daily planner itself (trans)individuates, similar to the way the greater technical system from which it is constituted has reached a metastable equilibrium in terms of the margins, the language and calendar used, the font and so on. When we plan our day or journal our interactions with the world and its inhabitants, we transindividuate and make meaning, which I will elaborate on later in this chapter with specific reference to Derrida's concept of *survivance*. By interacting with retentional apparatuses, we archive our meaning-making processes.

To recapitulate, primary retention refers to the 'Now' A that precedes and influences the 'Now' B, and primary protention is the anticipation of the not-yet 'Now' C, indicating a triple intentionality. Secondary retention refers to the memory A that precedes and influences the 'Now' B when it is conjured up in our imagination, the secondary protention C. Tertiary retention is the exteriorising of a memory into an object which is archived (tertiary protention) for future engagements in order to conjure the memory in our imagination. In terms of intergenerationality, the previous generation A, as well as thinking of the future generation C, influences the current generation B. This pattern is of importance in understanding what Stiegler means by the "doubly epokhal redoubling" (2019:14). First, "doubly", because it occurs in two stages: i) the technological *epokhē* – referring to the specific period in which a particular technology is dominant and transformative in the sense that it opens up new possibilities as well as changing our understanding of what is possible; and ii) the *epokhē* of knowledge – referring to how our understanding of ourselves, our communities and the world changes in correlation with the emergence of new technologies. *Epokhē*, as Stiegler defines it, "refers to both 'a period of time, an era, an epoch', and to an 'arrest', an 'interruption', a 'suspension of judgement', a 'state of doubt'" (2019:12). Grammatisation in terms of this refers to the establishment and formalisation of the new norms brought about by the change in the technical system. In other words, grammatisation is a response to a change in the technical system, and so is a way to make meaning in this state of doubt. Second, "redoubling" refers to the recursivity of this process. Hui articulates this well: "Recursivity is a general term for looping. This is not mere repetition, but rather more like a spiral, where every loop is different as the process moves generally towards an end, whether a closed one or an open one" (2019: n.p.). This implies that every transformation of a technical and social system, as well as the new possibilities emerging from our relationship to technics, become the new *already-there*, or baseline, resulting in a never-ending process of self-transformation and redefinition. Third, "epokhal" refers to the moment of transformation, or suspension, or interruption, in or as a result of technological development which requires that humans think critically about their relationship to technology so that an epoch can be established. The *epokhē* of knowledge is also described by Stiegler as "the constitution of a new transindividuation" (2019:14), with transindividuation referring to a mutual transformation and interdependence of individuals, communities and technical systems.

This play of retention and protention in terms of epochs and intergenerationality can be viewed through the lens of Derrida, as Rozamund Uljeé describes:

> Derrida uses Hamlet's famous phrase 'the time is out of joint' to further clarify how different temporalities remain perpetually dislocated and haunted by each other: past events returning to our present as belonging to the future, and future events arriving

> into our present that cannot be relegated to the past, and thus do not cease to interrupt the present. (Uljeé, 2022:124)

If we are to merge these conceptions, the memories and knowledge of previous epochs and generations continually influence (haunt) the present and future epochs and generations. The emergence of something new – something of/from the future in another way – interrupt and influence the current epoch and generation in new ways. These are destabilising functions where the current epoch and generation adjust accordingly to mitigate these tendencies and possibilities in order to reach again a metastable equilibrium. This includes our knowledge and memories on how we make sense of death, which Derrida sees throughout history as the human tendency to give death a concrete and material form by identifying the remains and placing them somewhere specific like a grave:

> [Mourning] consists always in attempting to ontologize remains, to make them present, in the first place by *identifying* the bodily remains and by *localizing* the dead. (Derrida, 2006:9)

This attempt to "ontologize remains, to make them present" (Derrida, 2006:9) is a way to *connect* to the deceased. For example, the Ancient Egyptians *identified* the remains of deceased pharaohs and mummified their corpses and placed – *localised* – the dead in the tombs sealed in the pyramids to capture the 'life essence' of those who died. This social practice of attempting to make sense of death that Derrida describes is still prevalent in most societies and cultures today. We can think here of a morgue contacting a family member of a deceased person to verify the identity of the corpse, and later that the corpse is buried somewhere, or cremated and the remains strewn somewhere, or even placed in an urn to be kept somewhere specific. On mourning, Reynolds (2021:n.p.) notes that for Derrida a "'successful' mourning of the deceased other fails […] because the other person becomes a part of us, and in this interiorisation their genuine alterity is no longer respected" and that "failure to mourn the other's death paradoxically appears to succeed, because the presence of the other person in their exteriority is prolonged", which leads Reynolds to conclude that

> [i]f we refuse to engage with the dead other, we also exclude their foreignness from ourselves and hence prevent any transformative interaction with them. When fetishized in their externality in such a manner, the dead other really is lifeless […] the responsibility towards the other is about respecting and even emphasising this resistance [to interiorise the other]. (Reynolds, 2021:n.p.)

By identifying the remains and localising the dead, our mourning practices allow us to understand that the dead other is immanently part of our own (trans)individuation; that is, we make meaning through mourning the dead other. However, when mourning is successful, or once we cease mourning and engaging with the dead other – in the sense that we 'can move

on' because we 'let go' of the dead's *haunting* of our lives – we "prevent any transformative interaction with them" (Reynolds, 2021:n.p.) or, put differently, we prevent transindividuation with the collective dead and psychic dead individual that are haunting us. Derrida describes the concepts of the *spirit* and the *spectre*:

> The spirit, the specter are not the same thing, and we will have to sharpen this difference; but as for what they have in common, one does not know what it is, what it is presently. *It is* something that one does not know, precisely, and one does not know if precisely it *is*, if it exists, if it responds to a name and corresponds to an essence. One does not know: not out of ignorance, but because this non-object, this non-present present, this being-there of an absent or departed one no longer belongs to knowledge. […] One does not know if it is living or if it is dead. Here is – or rather there is, over there, an unnameable or almost unnameable thing: something, between something and someone, anyone or anything, some thing, "this thing," but this thing and not any other, this thing that looks at us, that concerns us [*qui nous regarde*], comes to defy semantics as much as ontology, psychoanalysis as much as philosophy. […] The Thing is still invisible, it is *nothing* visible […] at the moment one speaks of it and in order to ask oneself if it has reappeared. It is still nothing that can be seen when one speaks of it. (Derrida, 2006:5)

Derrida makes an important distinction between the *spirit* and the *spectre*. The spirit refers to the idea that there exists an absolute transcendent truth or essence, which is *beyond* language and human understanding. For the most part, for Derrida, Western philosophy and culture has pursued this 'spirit' and in doing so has privileged certain – transcendent – modes of thought, resulting in a hierarchisation of language and writing. In this way, Derrida utilises the concept of the spirit to represent these transcendent, idealised, unattainable concepts that are *haunting* Western philosophy, by which he means that there exists a tension between what is absent and what is present, such that even the absent is a present-absent and the present is then an absent-present. The above extract shows that for Derrida the spirit and the spectre are similar in the way that they are unknowable, non-present present (present-absent), (almost) unnameable, and that they are invisible. However, the spectre refers to that *thing* of the past – the *trace* – that influences the present in ways that are hidden and, in terms of philosophy and culture, ideas of the past that influence and destabilise, or *haunt*, the present. In terms of mourning, then, for Derrida, it is this present-absent *trace* of meaning, memory, knowledge of the deceased that is left behind, and by externalising this trace we are not able to engage with it or, in Stiegler's terms, (*trans*)*individuate with it*, which leads to the dead other really being *lifeless*. For intergenerational memory and knowledge transfer, then, it is this *trace* of the previous generation that gets left behind, haunting the 'current' generation, and that the 'current' generation will also leave behind a trace for the next generation and so on. I consider the work of Uljeé on Derrida that focuses on friendship and *survival*, and specifically the notion that

> … the end is always and already there from the beginning: mourning is inextricably intertwined with any friendship at and in the present and thus, curiously, the notion of survival implies that the event of friendship can only take place when its temporalisation is haunted by a future that is still to come. (Uljeé, 2022:122)

Here Uljeé interprets Derrida's thoughts on friendship as that friendship is always bound up in two different temporal orders: friendship is always haunted by the future, that is, the future death of the friend, and so can "never fully and completely be present" even though it *needs* that stability and duration for it to be formed (2022:120). And so, Uljeé notes that for Derrida,

> … friendship is always already bound up with loss and mourning, because it is impossible to survive without mourning. The very element in which friendship is constituted and can grow is mourning itself. (Uljeé, 2022:121)

This is because, in a friendship, one is always *anticipating* the future death of the friend, just like one anticipates the death of oneself. In the same way that this anticipation of our own death opens up possibilities for meaning-making, the anticipation of the death of the friend is a type of pre-emptive mourning; that is, we need to make meaning of this friendship, or that friendship is *supposed* to already be a meaningful relationship. Uljeé interprets this pre-emptive mourning as *a mourning of time because it is haunted by the future, a future that brings death*:

> As well as the future death of the friend, it seems that time is what mourning is about; not in the sense that we grieve about the passing of time, but in the sense that we always already mourn the future, because it is the future that brings loss, grief and death, thereby opening the question of survival. (Uljeé, 2022:121)

Uljeé (2022) incorporates Derrida's conception of *survival* in terms of mourning and friendship, which Derrida articulated in a series of seminars, 'The beast and the sovereign'. Here Derrida considers the famous survival novel *Robinson Crusoe* (1719) by Daniel Defoe to develop the concept of *survivance*. The titular character, Crusoe, is shipwrecked and, importantly, the sole survivor of an expedition. The novel is written from a first-person perspective in the form of Crusoe's journal and was deceptively marketed as a true account of Crusoe's life. The novel, then, or rather, Crusoe's journal, is a tertiary retention, an externalisation of Crusoe's memory and meaning-making – or Crusoe's means of making meaning in the face of his certain demise, his acute awareness of his impending death. This awareness reflects Heidegger's concept of *being-towards-death*. In the words of Derrida:

> You have already understood that a book, and, still more acutely, a book the text of which is a fiction in the first person, inserting into the living narrative quotations, inserts, inscriptions from a journal speaking in the first person, etc., that such a book is both alive and dead or, if you prefer, neither dead nor alive; and everything that not only

> Defoe, but, in *Robinson Crusoe,* Robinson Crusoe himself, both the Robinson Crusoe who speaks and the one keeping a journal, all that they — there are already a lot of them — might have desired is that the book, and in it the journal, outlive them: that they outlive Defoe, and the character called Robinson Crusoe. (Derrida, 2002:130)

The novel, the journal, is a thing that is the *trace* and contains *traces* of Crusoe's life – it is the thing that survives Crusoe's (and in terms of the novel, Defoe's) death. Derrida regards Defoe's novel as something that was written by the author to outlive him in the same way that the character (Crusoe) has written his journal as something that can outlive him, because, as Derrida writes, "thanks to which the book bearing this title has come down to us, has been read and will be read, interpreted, taught, saved, translated, reprinted, illustrated, filmed, [it will be] kept alive by millions of inheritors" (2002:130). This, then, is how the trace 'lives' on, 'outlives' Crusoe and Defoe, transferring memory, meaning and knowledge intergenerationally and collectively – individuating, transindividuating alongside the technical system – continually existing and able to effect influence through its adaptation and interpretation, its translation and so on, "each time we trace a trace, each time a trace, however singular, is left behind" (Derrida, 2002:131). In this way, the dead *lives*. Defoe's novel and Crusoe's journal are both *traces* that simultaneously represent life and death. That is, Derrida's deconstruction of the life/death binary through *survivance*: "Survivance in a sense of survival that is neither life nor death pure and simple, a sense that is not thinkable on the basis of the opposition between life and death", but rather it is "a groundless ground from which we are detached, identified, and opposed what we think we can identify under the name of death or dying, like death properly so called as opposed to some life properly so called" (Derrida, 2002:131).

Rather than existing alongside Others in the world and anticipating death in terms of Heidegger, Derrida conceives of a state of *survivance* – a living dead trace-state from which our meaning-making of our (non-)existence emerges, the emergence of our identity, our selfhood – where the Other exists as survivors because they are beyond our own existence, or in other words, beings other than ourselves transcend our existence; namely:

> That is what the self is, that is what I am, what the *I* is, whether I am there or not. The other, the others, that is the very thing that survives me, that is called to survive me and that I call the other inasmuch as it is called, in advance, to survive me, structurally my survivor. Not my survivor, but the survivor of me, the *there* beyond my life. (Derrida, 2002:131)

In terms of mourning, considering Reynolds' interpretation of Derrida, through *survivance* the dead are no longer only lifeless, but simultaneously deathless, or living dead. By interacting with the living dead traces of the deceased, their *survivance*, we are able to psychically and collectively transindividuate alongside the living dead Other; that is, a mutual 'becoming' by

engaging with the *survivances* of the living dead, because death is not opposed to life; *death is immanent to life* because *the living dead trace transcends the life/death binary*. Although I focus here specifically on mourning, it is important to note that *survivance* goes beyond mourning the dead. Derrida continues:

> Like every trace, a book, the survivance of a book, from its first moment on, is a living-dead machine, surviving, the body of a thing buried in a library, a bookstore, in cellars, urns, drowned in the worldwide waves of a Web, etc., but a dead thing that resuscitates each time a breath of living reading, each time the breath of the other or the other breath, each time an intentionality intends it and makes it live again by animating it, like, as the Husserl of the *Origin of Geometry* would say, a "*geistige Leiblichkeit,*" a body, a spiritual corporeality, a body proper (*Leib* and not *Körper*), a body proper animated, activated, traversed, shot through with intentional spirituality. (Derrida, 2002:131)

For Derrida, while every trace, every object that carries an externalised memory, or what Stiegler calls *retentional apparatuses*, may seem lifeless or dead, as one supposes such objects should be, this externalised memory is something that lives and something that can be interacted with through the reading of a book, talking to a tombstone to connect with the dead, engaging with a social media post, and the like.

I remember distinctly and quite fondly how my grandfather, in church, gave me a Wilson's XXX mint so that I would be quiet and sit still. These mints were in his shirt pocket, where he also kept his pipe, and usually the mints were covered in tobacco ash. When I'm in a shop and I see that brand of mints, I almost automatically think of the ash-covered mints in church, my late grandfather's unconcerned attitude, and his love for his family.

The mints are imbued with a trace, a memory, a supposed dead object rife with (a) life that for me can never be separated – the mints are/contain a living dead trace that *haunts*. By interacting with these mints, by recognising the brand or by eating them, my "intentionality intends it and makes it live again" (Derrida, 2002:131); or, in other words, by interacting with these mints, my grandfather, the memory of him, or the traces of him, are made alive again, and so my grandfather (the dead other) is mourned and no longer lifeless. This interaction with the trace allows me to individuate alongside my deceased grandfather and make meaning, gather knowledge, through this mourning practice.

2.6 Conclusion

This chapter addressed the first specific research question: *How have some philosophers conceived of death?,* with the research objective being *to determine how some philosophers have conceived of death* as it relates to meaning-making for time-binding subjects. In the

broader scope of this study, this chapter lays the groundwork for concepts that are referred to throughout the rest of the study, where the focus is on how digital technology and automation have affected our epistemological practices and the collective synthesis of knowledge; that is, how digital technology has *disrupted* our conceptions of death and meaning-making, as well as how they are transferred intergenerationally. This is the theme of both Chapters 2 and 3.

Chapter 3

Digitisation, algorithms and spatial refiguration

> A world is the projection of meaningful patterns on the surrounding space of lived experience. It is the sharing of a common code whose key lies in the forms of life of the community itself. (Berardi, 2015:331)

> [H]umans do not just perceive and act within space as an immutable frame of reference; rather by inhabiting, living, and all the while changing space, they render it relational. In other words, far-reaching takes on contemporary phenomena must appeal to both social and spatial circumstances in order to move beyond the truism that 'everything happens somewhere,' for it is, in effect, the where what allows the how to be fathomed – the inextricable fusion of context and causality. (Million *et al*., 2022:1)

> Nothing could be worse, for the work of mourning, than confusion or doubt: one has to know who is buried where—and it is necessary (to know—to make certain) that, in what remains of him, he remain there. Let him stay there and move no more! (Derrida, 2006:9)

3.1 Introduction

Chapter 2 explored philosophers' perspectives on death, how we make sense of death and why it is important to make meaning of one's life, as well as how this is done and how memory and knowledge are transferred intergenerationally. In this chapter, I briefly sketch how we moved from Foucault's disciplinary societies to Deleuze's control societies to what Rouvroy and Stiegler call societies of hyper-control or algorithmic society. Although other kinds of systems of governance, such as sovereign systems, but also more nomadic systems, also form part of our collective histories and have left traces in our social practices, I concentrate here on disciplinary and control societies as this is what Rouvroy and Stiegler draw on. The purpose is thus to provide background for understanding Stiegler's conception of the "doubly epokhal redoubling" and what this means for contemporary mourning practices and understandings of death.

3.2 Doubly epokhal redoubling: Death in the face of the algorithmic *disruption*

Stiegler's conception of the 'doubly epokhal redoubling' is crucial for understanding how we individuate alongside a technical system. By 'doubly' Stiegler means that there are two key transformative stages, the first being the technological epokhē, where a technology in a specific time period becomes dominant and transformative, and so opens up new possibilities

as well as new possibilities for understanding. For example, energy technologies like steam-powered machinery brought about the age of industrialisation. The second, the epokhē of knowledge, which is how we come to understand ourselves, our communities and the world in this new way brought about by the change in the technical system. We may think here of how industrialisation and urbanisation fundamentally transformed society because, among other things, the harrowing circumstances in factories led the new class of workers to pursue the establishment of reconceived human rights. Grammatisation, a concept Stiegler adopts from Derrida, as discussed in the first chapter, refers then to the establishing of new norms or the transforming of existing norms with this change. The term 'redoubling' illustrates that every new incarnation, every possibility of our relationship to technics, become the new baseline from which the next will be transformed – indicating a continuous and recursive process of self-transformation and redefinition spurred by the change in the technical system. Lastly, 'epokhal', which refers to a transformative 'interruption' where we can think critically about our relationship to technology. With this epokhē of knowledge, new ways of transindividuation are constituted. Stiegler explains this as follows:

> My thought was much influenced by the philosophy of Gilbert Simondon, who was an important thinker of individuation. Simondon says that if you want to understand the individual, you need to inscribe the individual in a process of which he is only a phase. As such, the individual has no interests. The individual is only an aspect, or a phase of a process, but the process is what is important. So what is this process? It is the process of individuation, that is of transformation, and for Simondon, everything is caught up in and brought into a process of individuation. For example, the passages of life are a process of individuation, but 'technics' are also processes of individuations. (Stiegler & Rogoff, 2010)

Together, they are in the processes of transindividuation – or phase transitions – which are important for understanding how Stiegler's notion of the doubly epokhal redoubling relates to his concepts of *primary*, *secondary* and *tertiary retention* and *protention* (as discussed in Chapter 2), in that the knowledge and memory of the preceding epoch influences the present epoch. This, in turn, relates to Derrida's concepts of the *trace* and the *spectre*, where traces of the preceding epoch are spectres to the present epoch – *haunting* or influencing ways that are not visible. The preceding chapter discussed, through the work of Heidegger, that it is important for humans to make meaning because of their *anticipation* of death. The making of meaning is done in numerous ways, one being transindividuating alongside others (creating meaningful relationships), and another is the exteriorising of memories (*tertiary retentions*) and leaving them behind for others so that a *trace* of you survive for others to find meaning.

Algorithms, digitisation and automation are the technologies that have changed our lives in unprecedented ways. Stiegler refers to this kind of structural reorganisation as "organology"

and to the adaptation and adoption processes these require as the “organology of transindividuation”. These technologies and the social systems within which they function are haunted by traces of the initial transformations and spatio-temporal, affective and other disadjustments brought about by, for example, industrialisation or, more recently, the inception of mass digital media. This is because these novel modes of social and technical organisation subject “the production of the symbolic” to industrial processes, which does not mean that the symbols are now “object[s] of consumption” but, rather, that they have become “object[s] of exchange, of circulation, or of the creation of circuits of trans-individuation” (Stiegler & Rogoff, 2010:n.p.). Moreover, following Heidegger’s thought on the thrownness of *Dasein* (explored in Chapter 2), we are ‘thrown’ into the world, and so there is a spatial component to making meaning and making sense of death when the technical system transindividuates. Keeping these threads in mind, this chapter focuses on ideas and perspectives relating to our engagement with algorithms, digital technology and automation. Thus, I address the third specific research question, namely: *What are some of the ways in which algorithms, digital technology and automation have affected our epistemological practices and the collective synthesis of knowledge?* This, then, is coupled with the second research objective: *To explore some ways in which digital technology has changed our meaning-making practices and how we grapple with and make sense of death.*

To achieve this objective, I employ a post qualitative research method. Like the preceding chapter, the current chapter prioritises relationality above a logical flow of thought, though not at the expense of logicality per se, and focuses on what Stiegler calls the “doubly epokhal redoubling” and how the shift to digitisation, automation and other computational technologies have changed the epoch in terms of the type of society, subjectivity, governmentality and space and how we conceive of space (spatial refiguration). Mediatisation, one of the subprocesses of spatial refiguration identified by Löw and Knoblauch (2022), is particularly important because mourning is increasingly being mediatised. I start with a discussion of computer algorithms and artificial intelligence as the technologies that have become dominant, initiating the current epoch, and then move to the epokhal changes they have brought about; that is, from disciplinary to algorithmic societies and surveillance capitalism, and the subjectivation processes in terms of algorithmic governmentality, and finally, how space has been refigured and how this has affected how we mourn and make sense of death in the digital age.

3.3 Algorithmic life: Automated systems and the quantification of behaviour

According to Reuben Binns, computer algorithms are increasingly deployed and used in decision-making throughout society. A *decision-maker* here refers to an entity that needs to make decisions which defer to "the output of an automated system, with little or no human input" (Binns, 2017:543). Such decision-makers, or rather artificial intelligences (AIs), as Martí Petit notes, is defined by the United States Advisory Commission on Public Diplomacy as "an evolving constellation of technologies enabling computers to simulate cognitive processes" (cited in Petit, 2018:5). Petit describes machine learning as a subset of AI that enables the interpretation of data as well as decision-making in uncertain contexts to perform actions to achieve fixed objectives, for example Google's search algorithm which can provide personal recommendations for online content (Petit, 2018:5). An evolved type of machine learning is *deep learning* with "additional layers of processing resembling neuron structures in the brain" which is capable of operating "hundreds of bots on Twitter with minimal skills" (Petit, 2018:5)[1]. Deep learning creates a massive problem for Petit: combined with big data it enables highly personalised forms of both commercial and political propaganda that can use bots as well as people "in order to artificially shape public life" (2018:7), for example political elections such as the Trump election boosted by bots, as well as the fake news spread by bots to influence the results.

AIs could more accurately be described as machine learning models, even though the former is used more often, especially colloquially. A number of researchers have made an effort to bring this to public's attention in order to temper the current AI craze. Of these researchers are Emily Bender, Timnit Gebru, Angelina McMillan-Major and Shmargaret Shmitchell, who wrote an important article titled, "On the Dangers of Stochastic Parrots: Can Language Models be too Big?" In the article, they argue that large language models like ChatGPT, which are commonly thought of as AIs, are anything but intelligent. Rather, they stochastically – or probabilistically – stitch "together sequences of linguistic forms" that have no real "reference to meaning" (Bender *et al*., 2021:617), but are nonetheless thought to be displaying some level of conscious activity that is smart. Because of this belief in computers, AIs affect individuals (*decision-subjects*) in a variety of ways – sometimes in beneficial ways and, at other times, in more harmful ways. Virginia Dignum outlines some ways in which AI can be beneficial:

> AI can help us in many ways: it can perform hard, dangerous or boring work for us; it can help us save lives and cope with disasters; and it can entertain us and make our

[1] From mid-2023, Twitter has been rebranded as X.

> daily life more comfortable. AI systems manage complex, data-intensive tasks, e.g. monitoring credit card systems for fraudulent behavior, enabling high-frequency stock trading, supporting medical diagnoses and detecting cybersecurity threats. Embodied as robots, AI is soon to move and work among us, in the form of service, transportation, medical and military robots. (Dignum, 2017:1)

There are, however, also many harmful applications such as predictive policing. For these reasons, as both Dignum (2017:1) and Binns (2017:543) have shown, there are increasing calls to make AI or algorithmic decision-makers accountable and responsible, especially given that there are almost no concrete approaches to the responsible design of AI; that is, there are almost no ethical standards that can be embedded in AI design. And where ethical standards are developed, they often obscure the actual harms of the technology in question. Binns notes that the mediation of life through intelligent computation systems "means that predictions, classifications and decisions can be made about people, on the basis of algorithmic models trained on large datasets of historical trends" (2017:545). In this way, something like predictive policing, whereby algorithms analyse data and predict potential crime, contribute to the profiling of people and overwhelmingly target certain populations such as Black and Muslim people. This has a direct bearing on death and its digital effects, as the #BlackLivesMatter and #SayHerName sociopolitical movements demonstrate.

According to Will Douglas Heaven (2021:n.p.) predictive policing tools have biases toward black people because they are trained on arrest data – and it is known that police "arrest more people in Black and other minority neighborhoods". This is also related to the victim reports that are also more likely to have Black people reported than white. This results in the misallocation of police patrols by AI predictive policing tools. Heaven also notes that there is "no quick fix" to this problem, even if the models are programmed to account for these biases (2021:n.p.).

Chris Bibey (2023:n.p.) reports that AI and the use of facial recognition software has been used to identify January 6th Capitol rioters, and that the increase in the usage of body cams have unearthed "horrific events". The Black Lives Matter protests and riots of 2020 "originated from released body cam footage" (Bibey, 2023:n.p.).

AI reasoning ought to be able to consider societal, moral and ethical values in different multicultural contexts, as well as to be able to explain its reasoning in order to guarantee transparency (Dignum, 2017:1) because, following Binns,

> [i]f an algorithm is trained on data that are biased or reflect unjust structural inequalities of gender, race, or other sensitive attributes, it may 'learn' to discriminate using those attributes. (Binns, 2017:546)

As such, *machine learning*, which for Binns refers to the training of models with learning algorithms that use large datasets of "relevant past phenomena" that are most often generated as a by-product of digitally-mediated human activity, can reinforce underlying social inequalities *because* algorithmic decision-makers are inevitably deployed with ethical assumptions (2017:545-547; see also Simone Browne's 2015 book, *Dark Matters: On the Surveillance of Blackness*). Consequently, AI reasoning *ought to* be able to consider societal, moral and ethical values in different multicultural contexts, but because it is trained on the data and decisions made by humans, we cannot expect it to. *Algorithmic reason,* then, refers to the 'reasoning' of AI that is based on a statistical analysis and the manipulation of massive amounts of human-reasoned data: it is programmed *by* humans to analyse hyperquantified human behaviour. Our digitally mediated *tertiary retentions*, or our externalising of memory (and how we 'reason') in these digital objects, include our values as well as our biases, and it would appear to be an impasse to rid the whole of humanity of their values and biases *and their history of these*, in order for AI to be rid of them. Moreover, as it stands, it is too late because AI has already been trained with a massive amount of these very personal and individual 'instigators' of behaviour. AI technologies, then, are exemplary of how the present contains hauntological traces of the past which, in turn, haunt the future and, more importantly, condition the possibilities for future transindividuations *in advance.* For example, human biases haunt AI, being present-absent spectres looming over the futures to come.

For the capabilities of AI, we can think of the creation of chatbots that can mimic people. Clare Duffy reported for CNN Business that Microsoft has been granted a patent that details "a method for creating a conversational chatbot modelled after a specific person – a 'past or present entity … such as a friend, a relative, an acquaintance, a celebrity, a fictional character, a historical figure'" (Duffy, 2021). Although Microsoft has confirmed that there is no plan to create such a chatbot, the patent does describe how this is possible:

> [T]he tool would cull 'social data' such as images, social media posts, messages, voice data and written letters from the chosen individual. That data would be used to train a chatbot to 'converse and interact in the personality of the specific person.' […] 'Conversing in the personality of a specific person may include determining and/or using conversational attributes of the specific person, such as style, diction, tone, voice, intent, sentence/dialogue length and complexity, topic and consistency,' as well as using behavioral attributes such as interests and opinions and demographic information such as age, gender and profession, the patent states. (Duffy, 2021)

The mimicking of people by AI includes the mimicking of those who are deceased, which has massive implications for how we make sense of death as well as our mourning practices. I discuss mimesis in more detail in Chapter 4. Important for now, as quoted above, is that the patent describes how this will be possible – by training AI on data, from interests to behaviours,

that are collected from our interaction with digital technology. In this way, digital technologies are also a means of surveying those who engage with them, and so, these 'behind-the-scenes' functionalities of AIs affect people in ways that they may not even be aware of, thus effecting changes in the spatial fabric of society, subjectivation processes, and our epistemological and meaning-making practices. We can again think of thrownness here and how we are 'thrown' into the world with AI technologies, and how to make meaning amid the influence of these 'new' technologies while being surveilled.

Shoshana Zuboff, in her groundbreaking book *The Age of Surveillance Capitalism* (2019) argues that, often, "simply browsing a website obligates you to its terms-of-service agreement even if you don't know it" (n.p.). This has triggered enormous asymmetries in knowledge and power between users and large companies like Amazon, Google, and so on. More importantly, the data accumulated from a person's online activities are "repurposed in new forms of social control, all of it in the service of others' interests and in the absence of our awareness or means of combat" (n.p.).

To understand the relationship between technology and society, I move to a brief background discussion of the work of Michel Foucault and Gilles Deleuze in terms of the *disciplinary society* and the *society of control*.

3.4 Disciplinary societies, control societies and algorithmic governmentality

In *Discipline and Punish* (1977), Foucault demonstrates how crime and punishment had morphed from "the great murders to the quiet game of the well behaved" (1977:69). Although socioeconomic changes provoked these shifts, they were also made possible by technological changes. Foucault conceived of the societies from the 18th to the 20th centuries as *disciplinary societies* which, according to Gilles Deleuze, are *moulding* spaces (1992:1); that is, enclosed environments that are self-regulating and deeply entrenched in regiments, authority structures, strict routines and so on. Enclosed environments include places like the military, the hospital and the 'school'. According to Deleuze, the school, like other such 'moulds', has its own laws and ideal project, which is

> … to concentrate; to distribute in space; to order in time; to compose a productive force within the dimension of space-time whose effect will be greater than the sum of its component parts. (Deleuze, 1992:3)

The school functions as a space where people are constantly monitored, be it through cameras or even the gaze of the other, and contributes to the internalisation of behavioural norms such as dress codes, rules such as being quiet during class, being on time, doing tasks

that are given to you and the like, or be punished when not adhering to these norms in order to 'correct' your behaviour. All of these and more serve to regulate behaviours for the future when the student leaves this space for another enclosed space, with its own rules and purpose, which can be the factory, the church, the barracks, etc. The subject of disciplinary societies moves through these "distinct castings" (Deleuze, 1992:4), or specific places that are enclosed environments, which are independent variables: the subject moves, for example, from the family interior to school, from school to university, from university to the work environment. The type of power most commonly associated with disciplinary societies is *disciplinary power,* which is part of anatomopolitics, meaning the way in which people are governed and power is exercised is by way of controlling the body (i.e. the body is enclosed in a specific space like a school and is time-managed). These disciplinary spaces are, moreover, designed to encourage the internalisation of surveillance, which Foucault termed *panopticism*. Here, Foucault is drawing on the surveillance architecture of the panopticon designed by Jeremy Bentham which was widely deployed in prisons during the 18th and 19th centuries. The design of the panopticon allowed a corrections officer – usually a single one – to observe prisoners, although they could not in turn see the corrections officer or know when they were being watched or surveilled. Because of this, a sense of being surveilled at all times became internalised.

Other kinds of surveillance technologies prevalent in disciplinary societies included clocking-in systems. Towards the end of his life, Deleuze began to observe a change in the ways that power was exercised. Rather than societies being controlled by moulds of independently variable, enclosed environments, Deleuze argues for a new kind of power, namely 'control', by which he does not mean *direct authority over* or other synonymous connotations of *domination*, but processes of *continual modulation*. Deleuze describes this kind of modulatory power as "a self-deforming cast that will continuously change from one moment to another" (Deleuze, 1992:4). The control mechanisms of independent variables of each enclosed environment are now inseparable variations – in the disciplinary society these spaces have clear starting and end points, but in the control society this can no longer be distinguished – one can no longer finish anything (Deleuze, 1992:4-5).

Following Stiegler's notion that every individuation is a transindividuation, where subjects interact with the technical system as well as its individuation – in terms of technological advancements or changes in language, for example – the change from a disciplinary society to a society of control is the result of a technical individuation (such as energy technology to computing technology), and almost by default, a psychic and collective individuation. So then, because of the subjects' transindividuation alongside the technical system which brought

about a rise in computers for higher-order capitalist production, what is sold is *services*, not products. It is either the service of selling finished products it buys, like a supermarket does, or it is the service of assembling parts into a product, as fast food restaurants do. This higher-order capitalism seeks to buy stocks (Deleuze, 1992:6). The specific and analogically enclosed environments, like the school or barracks, have become transformable and deformable coded figures of corporations comprising only stockholders (Deleuze, 1992:6) –

> In societies of control […] what is important is no longer either a signature or a number, but a code: the code is a password […] The numerical language of control is made of codes that mark access to information, or reject it. We no longer find ourselves dealing with the mass/individual pair. Individuals have become 'dividuals,' and masses, samples, data, markets, or 'banks'. (Deleuze, 1992:5)

Accordingly, the society of control is populated by *dividuals*; that is, the individual is now a statistical aggregate and is directed by the capitalist axiomatic (self-evident nature), or the monetising of all relations. For Yuk Hui, this type of control that Deleuze refers to is no longer one that imposes its force on individuals explicitly or directly like in disciplinary societies because it does not "archive their obedience according to its institutional and social code"; it is rather characterised by "creating a space for the individual, as if he or she follows the logic of intangible forces" (Hui, 2015:75). The operations, techniques and targets of the disciplinary societies' power have not disappeared but have been appropriated for new ends, and so traces of the disciplinary society can be identified in current societies. The disciplinary society exudes control over our bodies, and the society of control over our *actuality*.

3.5 The infra- and supra-individual

Computer algorithms, AI, and machine and deep learning have, however, brought about another transformation since then. To be clear, an algorithm is a set of instructions that manipulates data input for a desired output. For example, data such as age, gender, location, employment, as well as data on a person's interests, needs, friends, family, acquaintances and interactions, collected from their engagement with online platforms such as social media, are manipulated by algorithms in order to predict what products or services that person is most likely to buy; that is, to ascertain a person's general behavioural tendencies and then to predict how they will behave, or even to 'guide' a person's behaviour. This, then, constitutes new ways of transindividuation and how we make meaning. In *algorithmic societies*, also known as *societies of hyper-control*, algorithms bypass the subject: they instead target the *infra-individual* and the *supra-individual* according to Antoinette Rouvroy (2013:157); that is, the numerised relations, raw data points and codes – *infra-individual*; and the subjects' data profile constructed from these raw data-points – the *supra-individual* (Hui, 2015:85). In this way, with

algorithms and digital technologies, we have changed from dividuals to *data persons*, that is, the bypassed subject, even though as dividuals we were already a kind of data person. However, the sophistication with which algorithms are deployed via machine learning models differs from dividuals in the sense that it not only makes us statistical aggregates, but also models our potentialities. Consequently, there exists a trace, in Derrida's sense, of the dividual in current algorithmic data persons. The difference is that while a dividual's data are used to draw up statistics on what they like and find interesting, algorithmic data persons are bypassed by machine learning processes that probabilistically draw relations between different kinds of data to construct a profile in order to suggest and feed content they may find interesting based on the behavioural data collected to the data person – in this way creating and predicting the desires of the subjects. For example, Facebook has 'friend suggestions' based on the relational data collected from the user's and their existing friends' data; Spotify suggests music and podcasts the user may like based on their listening data; and YouTube suggests videos based on the user's watch history. This has changed our lives in *unprecedented ways*. By bypassing its subjects and its capability to successfully predict and manipulate its subjects' behavioural patterns, the algorithmic society exerts control over our *potentiality*, namely, the future. This links to what Shoshana Zuboff calls the age of *surveillance capitalism*, where surveillance capitalism

> … unilaterally claims human experience as free raw material for translation into behavioral data. Although some of these data are applied to product or service improvement, the rest are declared as a proprietary *behavioral surplus*, fed into advanced manufacturing processes known as 'machine intelligence,' and fabricated into *prediction products* that anticipate what you will do now, soon, and later. Surveillance capitalists have grown immensely wealthy from these trading operations, for many companies are eager to lay bets on our future behavior. (Zuboff, 2019:n.p.)

Rouvroy (2013) coined the term *algorithmic governmentality* to denote the shift from neoliberal governmentality to the computational governing of people's conduct. The neoliberal subject's governmentality, for Jason Read (2009:29), operates based on interest, investment and competition, which correlates with the findings of Türken *et al.*'s (2016:32-42) analysis of the media discourse of self-development that demonstrate how the neoliberal subject is constituted by four interrelated discourses: rationality is highly valued and success is dependent on thinking, reflecting and self-examining; autonomy and responsibility indicate an individual's moral obligation to be independent and self-reliant and to improve; entrepreneurship refers to the individual's psyche as a product that is to be exploited, relating to self-improvement regarding skills and other capacities; and lastly, positively relating to self-esteem and self-confidence – that is, the idea that distress can be managed by being exuberant. This relates to what Daniele Lorenzini notes:

> [F]reedom is inserted within governmentality not only as the right of individuals legitimately opposed to the power, usurpations, and abuses of the sovereign or the government, but as an element that has become indispensable to governmentality itself. (Lorenzini, 2018:158)

In this way, neoliberal government functions on the basis of individual freedom and agency, or, in other words, neoliberal government produces the subjects it needs to sustain itself (Vignola, 2016:270). As mentioned previously, algorithms have changed this. Algorithms manipulate data input for a desired output, and using digital technology to collect information on a person's age, gender, location, interests, needs, and so on, quantifies this as raw data points – or the *infra-individual* – and constructs a data profile – the *supra-individual*. In this way, algorithms guide people's conduct by effectively bypassing them as subjects, and so individuals are prompted to act and think in certain ways, based on *reflex* and *alerts* (Hui, 2015:85; Rouvroy, 2016:31; Vignola, 2016:271). This power, although incorporating aspects of discipline (internalised surveillance) and control (modulation), is different from these as it acts on the infra-personal, that is to say, the pre-personal, level. Think, for example, of people's reactions to alerts, like social media notifications on smartphones, designed to trigger a primal (dopaminergic) reflex that, in a sense, forces the user to comply, almost like an animal's reflex when alerted to threat. Here, the infra-individual refers to the raw data points and code collected by big data and social media platforms. These are collected by, for instance, clicking on, 'liking', sharing, commenting on and following certain content, from which the supra-individual is constructed by machines, AI, and machine and deep learning models as a data profile through pattern analysis (Hui, 2015:85). For Paulo Vignola, the bypassing of the subject by algorithmic governmentality is contrasted with the neoliberal mode of governmentality that "creates the subjects it needs for production and consumption" (Vignola, 2016:270). It avoids any form of subjectivation because it is a-signifying (Hui, 2015:85; Rouvroy, 2016:31). In other words, subjects are not considered as concrete agents with "deep and complex reasons for their actions" (Vignola, 2016:271), which links to the architecture of the social media platforms, leading to a lack in nuance in posts because of the character limit and immediate feedback, as well as pre-existing categories that allow a user to choose the online communities they want to interact with. For example, Discord 'servers' or subreddits on the Reddit platform are created as representations of physical communities, such as gaming communities or communities of players of specific games like Elden Ring. This has an immense influence on reasoning, including ways in which we understand death in terms of *being the reason we need to pursue an authentic mode of existence*, as I explain in detail in Chapter 4. Briefly, though, we may think here of how people are starting to conceive of mind uploading or 'virtual life' according to which a deceased person is given life again. Basically, this entails using a person's digital archive, such as voice notes, images and messages, to

train chatbots to behave like the deceased person. This influence on reasoning is exacerbated and streamlined by algorithms – collecting data on the content you like and engage with, and also feeding more of the same content, ideas and suchlike to you because it 'wants' to agree with you for even more likes and engagement for more data. At the Digital Studies seminar series at Centre Georges Pompidou, Rouvroy noted a complicity/parallel between algorithmic and neoliberal government:

> We can also observe the complicity or at least a parallel between some modes of neoliberal government and the way individuals see their life as having a value only after being indexed according to their popularity on social networks, on the number of citations of the works, or on all sorts of quantification of the self. This 'machinic' dimension affects individuals in the way they design themselves autobiographically, biographically and the way they self-reflect. This explosion of data, but also of forms and persons, it is a hyperindexation of absolutely everything, including the personal form. Something seems quite worrying to me: the fact that individuals themselves come to conceive of themselves as only hyperquantified – and we refer to the 'quantified self'. They have only value according to the outside and to the performances of others. (Rouvroy & Stiegler, 2016:9)

We have thus moved from what Foucault (2008:226) called the 'entrepreneurship of the self' to this hyperquantification of the self that can be seen in the interest in high subscriber and follower counts, views, likes, comments, and the like, which has become a way for individuals to measure their worth, indicating that traces of neoliberal government are present in algorithmic government. Put in another way, a collective retention of neoliberal subjectivity has informed the 'now' algorithmic subjectivity.

3.6 Data, subjectivity and death

Algorithmic governmentality bypasses the subject through three stages, identified by Rouvroy and Berns (2013:vi-ix) as i) "the collection and automated storage of unfiltered data which refers to the accumulation of vast amounts of raw data from diverse sources, without any initial filtering or organisation"; ii) "the automated processing of these big data to identify subtle correlations between them [datamining]" where *datamining* refers to the practice of examining large pre-existing databases in order to generate new information, essentially looking for patterns and connections within the big data; and iii) "using this probabilistic statistical knowledge to anticipate and prompt individual behaviours and associate them with profiles defined [by] datamining", or in other words, using the data-derived knowledge to predict future actions of individuals/groups by categorising them into specific behavioural patterns or profiles.

Julia Kagan explains, for example, how insurers use “mortality tables” to determine a person’s “actuarial life expectancy” (2023:n.p.). By using algorithms to calculate this and set insurance premiums accordingly, insurers are able to “integrate a monetary cushion to protect insurers from going bankrupt” (2023:n.p.).

For Rouvroy and Berns (2013:vi) “generalized digital behaviourism” is a perspective that holds that the digital expresses and breaks down multiple facets of reality – stripping action and interaction “of the context in which [they] arose and [reduce them] to data”. Hence, our interaction with the digital is simplified and compartmentalised in the form of mere data points, devoid of any nuance or the rich context from which they emerge. These authors (Rouvroy & Berns, 2013:vi) write that “we tolerate leaving traces”, alluding to the idea that we leave digital footprints devoid of deeper personal significance, because data are stripped of any meaning. Accordingly, this is what

> … seems to support [big data’s] claim to perfect objectivity: such heterogenous data, so unmotivated, so material and so free of subjectivity, they cannot lie! […] It follows that we quite readily give them up for as they bear no meaning (at least as long as they are not correlated), are far less intrusive than a loyalty card, and do not seem to lie; in other words, they can be considered to be perfectly objective! This harmlessness and objectivity are both due to a sort of avoidance of subjectivity. (Rouvroy & Berns, 2013:vii)

In contrast, Zuboff regards this type of thinking as that

> … ordinary life [has been turned] into the daily renewal of a twenty-first-century Faustian compact. ‘Faustian’ because it is nearly impossible to tear ourselves away, despite the fact that what we must give in return will destroy life as we have known it. Consider that the internet has become essential for social participation, that the internet is now saturated with commerce, and that commerce is now subordinated to surveillance capitalism. Our dependency is at the heart of the commercial surveillance project, in which our felt needs for effective life vie against the inclination to resist its bold incursions. This conflict produces a psychic numbing that inures us to the realities of being tracked, parsed, mined, and modified. It disposes us to rationalize the situation in resigned cynicism, create excuses that operate like defense mechanisms (‘I have nothing to hide’), or find other ways to stick our heads in the sand, choosing ignorance out of frustration and helplessness. In this way, surveillance capitalism imposes a fundamentally illegitimate choice that twenty-first-century individuals should not have to make, and its normalization leaves us singing in our chains. (Zuboff, 2019:n.p.)

Because we deem big data collection to be harmless and objective, Rouvroy and Berns mention that we give up data *willingly* – by sharing personal data on digital platforms. By relying on reflex and alerts through the bypassing of the subject, there is a problem of consent that is concealed: individuals almost automatically *give up* their data *willingly* – “they minimize

the subject's involvement […] thus removing all form of intentionality" (Rouvroy & Berns, 2013:vi). Zuboff views this differently: we want to participate socially and, to be able to do this, we rationalise the discomfort of sharing everything about us with surveillance capitalists. As discussed in Chapter 2, our social practices are crucial for making meaning of life – we individuate and transindividuate psychically and collectively, alongside the technical system, in order to *become* our unique selves. We find meaning in relationships with other people, as Derrida notes in relation to friendship, where we are able to pre-emptively mourn the loss the future brings. Rather than read the over(t)ly extensive terms and conditions of digital platforms and applications, which is frustrating in itself, we choose ignorance. We choose ignorance because we are unable to form meaningful relationships, or find meaning in a career, *without* consenting to behavioural tracking. In this way, we are inculcated with *mediatisation*: we have to participate socially, and now social life is increasingly permeated by digitised media communication. It has become an enticement to participate, basically a given, as Babette Babich notes:

> Our concern with online events, our fear-of-missing-out, excuses our presence/absence (we worry about our appearance on Zoom – as if anyone can see anyone on Zoom) and, by the same token: the feedback loop offers the simulacrum that is the illusion of talk of our own name. Websites pretend to know us individually, personally. This efficacy seems universal and we have the neural research to prove it. (Babich, 2021:308)

Babich describes both our spectrality and our enticement to participate (to fulfil our need to belong socially amid being bypassed as agents) when exploring *techno-scotosis*, or our intellectual blindness when it comes to digital technology because it makes life 'easier'. When interacting with digital platforms, we become spectral (discussed in Chapter 2) in the sense that we are present at online events digitally, but physically absent. We want to participate socially and belong to these various communities of people with the same interests as us – which is almost impossible to facilitate physically, in-person, and so we opt for digital communities. This leads to an exploration of another epokhal shift, that of spatial refiguration and, more specifically, mediatisation: a doubly spectral redoubling.

My grandfather's memorial service was uploaded to YouTube by his church because it occurred during the Covid-19 lockdowns. While this was important for friends and family who couldn't attend, I sometimes fear that my grandmother might get stuck in a grief cycle if she gets access to it.

3.7 The reconfiguration of spatial logics

For Martina Löw and Hubert Knoblauch, space refers to "a relational arrangement of beings and social goods in places" and that "[s]pace is the medium of transformation for contemporary society as much as time" (2022:18,21). In their work, Löw and Knoblauch conceptualise *refiguration* – "that the social order of present-day societies results from two conflicting spatial logics based on two different dominant spatial figurations" (2022:18). 'Figuration', here, refers to how we understand space or how we conceive of space; and 'logic' refers to how Pierre Bourdieu conceived of it, that is, as a system or habitus constituting a

> … system of lasting, transposable dispositions which, integrating past experiences, functions at every moment as a matrix of perceptions, appreciations, and actions and makes possible the achievement of infinitely diversified tasks, thanks to analogical transfers of schemes permitting the solution of similarly shaped problems. (Bourdieu, 1977:82–83)

Löw and Knoblauch describe 'logic' as a structural principle resulting from "practicalities of action" (2022:18). One of the first spatial logics that Löw and Knoblauch identify is "exemplified by the modern nation state […], driven by the differentiation of institutionalized, specialized systems and the homogenization and centralization of bounded container spaces" (2022:18). This correlates with the 'moulds', the enclosed environments of the disciplinary societies. However, because they are interconnected by way of the systems in place that connect these 'moulded' container spaces, it corresponds with the society of control as well – the system has no start or end point, but is rather a centralised node to which everything else connects: the cast/container is moulded, but the system modulates the cast/container. This indicates the 'remnants', or perhaps the *traces,* of the disciplinary society in the society of control.

Another spatial logic that Löw and Knoblauch identify is exemplified by "the [digitalized] network society […], characterized by relationality and refers to the figuration represented by fluidity, hybridization, and transgression" (2022:18). Take currency as an example. The modern nation state has reserved contained spaces for their currency, albeit coded and in the process of becoming less so, which are institutionalised and centralised. Cryptocurrency, on the other hand, functions on the basis of networking – it is fluid, a hybrid and, most importantly, decentralised. The second spatial logic indicates societies' evolution to algorithmic societies, with the *traces* of disciplinary and control societies in the form of the first spatial logic. Or, seen in another way, the doubly epokhal redoubling – and the double spectral redoubling – where disciplinary societies became the baseline for control societies, and control societies the baseline from which algorithmic societies were formed, all of which contain the imprint of the

nation state. Löw and Knoblauch's conflicting figurations and spatial logics of present-day society are delineated in Figure 1.

Spatial compression	Disembedding
Centrality	Polycentricity
Hierarchy	Heterarchy
Nationalization	Transnationalization
Boundaries	Transgression
Container	Relationality
Exclusion	Inclusion
Territory	Deterritorialization

Figure 1: Conflicting figurations and spatial logics (Löw & Knoblauch, 2022:18)

In terms of spatial *refiguration*, the processes of the two conflicting logics are interwoven – synthesised – effecting spatial transformations that include the preceding epoch's epokhē of knowledge. This is illustrated by Figure 1: on the left-hand side, the first spatial logic is discussed and the second on the right-hand side. Note how the first spatial logic correlates with the way in which disciplinary societies function, and the second with the way algorithmic societies function. The society of control as conceived by Deleuze is an intermediary state between these. Importantly, however, as we engage with algorithms, which have become the predominant technology associated with our society today, even though there are remnants or traces of the preceding type of society, we are currently in an algorithmic society.

Löw and Knoblauch assume that "any social action finds its expression in space" and use 'refiguration' to explain how conflicting processes (Figure 1) "result in new figurations of space" (2022:21), for example the way a Zoom call synthesises virtual and real spaces. At the time of Löw and Knoblauch's writing, they tentatively identified that refiguration has three characteristic subprocesses, namely, *translocalisation*, *polycontexturalisation* and *mediatisation* (2022:22-23).

The first subprocess, translocalisation, is based on the assumption that "different places are increasingly linked" (Löw & Knoblauch, 2022:22). This is very close to what Benjamin Bratton calls *The Stack*:

> The Stack makes space by occupying it; it does so by surveying abstraction, absorbing it, and virtualizing it, which is how it is even possible to consider whether or not it expresses a *nomos* at all […] It digs deep into the ground, tunnelling cables across cities and countryside; passes across the seafloor of oceans linking continents

> physically as well as virtually; and bounces down from the swarms of overhead satellites and cell towers. Its infrastructural profile contains all of these qualities of the earth at once, each of them dependent on the others. It smooths space by striating it with heavy physical grids of cables and server farms, and striates space by smoothing it out with ubiquitous access, sensing, relaying and processing micropoints. For its chthonic *Cloud*, data centers are housed under mountains with reliable ice cores; suburban farmland between metropolitan trading centers is redug to lay private cable for algorithmic trading concerns near the old AT&T switches in New Jersey, realizing a new topographic expression of the transport layer of the TCP/IP stack; while the wireless frequency spectrum is subdivided, auctioned, allocated, and bundled into derivatives like any other prized commercial real estate. (Bratton, 2015:32)

Here, Bratton describes how the 'layers' of The Stack are connected to each other: they exist both in the virtual and physical realms and are able to make 'virtual-physical' places in the sense that physical spaces can be represented and abstracted into the virtual realm (think of Discord servers or subreddits for players of the video game Elden Ring (2022), for example).

As a player in Elden Ring, you find objects within the technical system that allows you to make meaning of this very different world and its inhabitants. Death has been removed by the goddess Marika. The bodies of the dead are returned to the Erdtree, and so they live again. In a way it is similar to mind uploading, where consciousness doesn't die with our bodies because it is transferred between technical vessels/vassals. Speculatively, we can think about this as a resetting when things have gone out of control.

On this Discord server or subreddit of Elden Ring players, players can share their experience of the game by means of posts from virtually anywhere in the world. In this way, where something like this occurrence would, in an offline sense, be people meeting in a physical space to discuss Elden Ring, a virtual representation of such communities is created or defined on platforms such as Discord or Reddit. In a Heideggerian sense, we (as *Dasein*s) are now 'thrown' in everywhere, or perhaps, we can choose to 'throw' ourselves virtually anywhere. Bratton emphasises the vast physical infrastructure – the underground cables and satellites – connecting data centres and allowing data transfers, which support digital infrastructure, as there would otherwise be no communication between servers and data centres. In this sense, the physical infrastructure is constitutive of the digital infrastructure and, importantly, the digital infrastructure also constitutes the physical infrastructure because the digital has become the 'new' mode of communicating, planning, and suchlike. In other words, The Stack is a multilayered and interconnected system – every layer relies on the other. Bratton also notes how spaces are physically disrupted by the construction of this infrastructure, which allows, conversely, 'smooth' constructions of digital infrastructure and virtual spaces and highlights the contrast of "suburban farmland" and "algorithmic trading" as

intersections of the old and the new. Just as physical spaces can be divided and sold, so too can the frequential spaces, like bandwidth, and even virtual spaces, be divided and sold, in the form of cloud-based storage for example, corresponding to the doubly epokhal redoubling as conceived of by Stiegler. Bratton describes the interconnectedness of the layers of The Stack as follows:

> At the top of any column, a *User* (animal, vegetable, or mineral) would occupy its own unique position and from there activate an *Interface* to manipulate things with particular *Addresses*, which are embedded in the land, sea, and air of urban surfaces on the *City* layer, all of which can process, store, and deliver data according to the computational capacity and legal dictates of a *Cloud* platform, which itself drinks from the *Earth* layer's energy reserves drawn into its data centers. (Bratton, 2015:68)

The sixth and top layer of The Stack is the User which refers to humans and other entities such as animals, vegetables and minerals, which interact with other layers through the *Interface* layer. This can be anything from physical computers or smartphones to online platforms that are engaged with. Through the Interface layer, the User is connected to specific physical and virtual spaces that are identified and located using the *Address* layer – from physical street addresses to IP addresses used to identify and locate computers and smartphones. These in turn are embedded in the *City* layer that serves as both physical and virtual spaces for data transfer, processing and storage in the form of servers, for example. This is linked to the *Cloud* layer which refers both to online data spaces and the frequencies that signal data transfer and the like above our heads, and then connected to the *Earth* layer from which it gathers its energy to be able to do all of this – the generation of energy for example that powers data centres.

These ways of interconnectedness between the layers of The Stack correspond to what Löw and Knoblauch (2022) identify as translocalisation, a characteristic of the conflicting spatial logics that interweave how subjects understand space in the algorithmic society, which has traces of the disciplinary and control societies that precede it; that is, the influence of the preceding epoch on the present epoch. On translocalisation, Löw and Knoblauch note that it becomes increasingly relevant to construct locality because "places are no longer assumed to be self-evident" (2022:22). Social media platforms and their communities are especially indicative of this as these spaces are virtual representations of physical spaces.

Bratton's conception of The Stack also corresponds to the second characteristic subprocess identified by Löw and Knoblauch, polycontexturalisation, which "expresses [their] assumption that space, circulation, networks, and places, for example, are being connected in a new way by what we call communicative action", namely,

> … digitalization with its assumed tendency towards networking and decentralization has not led to a substitution of spatially centralized control rooms, but rather has fostered the rapid integration of very different functionalities. (Löw & Knoblauch, 2022:22)

Polycontexturalisation is a "postmodern transgression of space", but also contributes "to the bounding of certain spaces" and helps "accentuate differences between urban and rural areas" (Löw & Knoblauch, 2022:23). The third characteristic, mediatisation, in terms of spatial refiguration, has not despatialised society but affects social action that finds its expression in space. Importantly:

> By changing the relations between subjects as well as subjects and objects, mediatization contributes to the refiguration of subjective aspects of space. (Löw & Knoblauch, 2022:24)

Kho Suet Nie, Chang Peng Kee and Abdul Latiff Ahmad (2014:2) conceive of mediatisation as follows: "The essence of mediatization is the dominance of media in the existing system and institution in society". They draw on Livingstone (cited in Nie *et al*., 2014) who describes it as a "'meta process by which everyday practices and social relations are increasingly shaped by mediating technology and media organizations'" (2014:2). I prefer Anna M. Wagner's (2018:1) more nuanced definition of mediatisation (or mediation or medialisation): a "meta-process [that] is used to describe this increasing permeation of social life by media communication". This corresponds to Bratton's conception of the Interface and City layers; it is through media usage that the User layer is able to function socially in these interconnected layers of The Stack, especially because *media* is an umbrella term that encapsulates almost any information or process or informational communicative process. In this regard, the word *media* can refer to a physical object carrying information (perhaps tertiary retentions as externalised memories and knowledge) such as a newspaper, or a digital object such as a blogpost, but it can also refer to it being a plural form of *medium*, which indicates that it is something through which something is passed, like information being communicated. Importantly, mediatisation refers to the *digital* media communication technologies that increasingly shape how we interact, *how we make meaning* and *how we synthesise knowledge*.

The days following the death of my brother-in-law, my mother and father-in-law experienced an overwhelming influx of condolences on instant messaging platforms and frequent notifications of someone posting on their son's Facebook wall.

An example of the effects of mediatisation is Wagner's work on the *mediatisation of mourning* where new norms are established (grammatised, if you will, as discussed in Chapter 2).

Wagner (2018:1) provides insight into the change in norms and social practices around death by mediatisation and its accompanying spatial transformation. In an article that systematically reviews 25 internationally published journal articles on norms that guide mourning practices and the '(non-)reactions' to these practices, Wagner (2018) identifies three themes: i) *the mediatisation of mourning*, ii) *social media as virtual spaces of mourning*, and iii) *the role of norms for social media mourning practices*.

3.8 The mediatisation of mourning

Wagner's (2018) review of the mediatisation of mourning found that the two different traditions of mediatisation research – the institutionalist and the social constructivist traditions – converge "in that they assume a qualitatively and quantitatively increasing impact of media communication on social life – which is also visible in the way people nowadays grieve and mourn" (Wagner, 2018:2). This mediatisation of mourning, then, leads to the second and third themes identified by Wagner. The second theme identified, social media as virtual spaces of mourning, includes the "expansion of mourning through social media" and new "mourning practices in social media" (Wagner, 2018:2-3). Social media platforms, because they are not necessarily originally designed for mourning, do not constitute new mourning spaces isolated from other social spaces – they rather serve as an expansion of these spaces. For Wagner (2018:2), it is "crucial to note that social media technologies are by no means the only media technologies influencing the way people mourn, neither are most of the transformations catalyzed by social media entirely new", and in this sense, the expanding of mourning spaces into the virtual is one of these transformations. This corresponds with Bratton's view that spaces in the virtual can be defined, divided, repurposed for new means – in this case, for mourning. Because it is connected via the Interface layer, the User layer can interact with this platform to perform the social practice of mourning, and communities of collective mourning can be established, as well as virtual spaces for memorials.

For Wagner, spaces for mourning are expanded in four ways. Firstly, *temporal expansion* which refers to the expansion in terms of breadth, that is, the integration of content related to the past, present and future, as well as expansion in terms of the immediacy of death and mourning-related information that "[intertwines] experiences of grief and loss with everyday social media experiences" (Wagner, 2018:2). This can, however, lead to unwanted interactions while mourning, in the sense that one may scroll through memes and other posts to distract from the heartache and suddenly be faced with the profile that, in terms of Derrida, is a *trace* that *survives* the deceased, or an in-memoriam post of a deceased loved one. Secondly, *spatial expansion* refers to the dissolution of geographical limitations – one can participate in mourning practices from (almost) any location. This corresponds to the work of

Löw and Knoblauch regarding the subprocesses of spatial refiguration in terms of translocalisation (spaces are increasingly linked), and the work of Bratton where the User layer and physical spaces are linked to virtual spaces through the Interface layer. Thirdly, the way of *social expansion* that "is used to describe the *unification* of distinct social groups through the spread of information related to the passing of an individual user" (Wagner, 2018:4). This includes but is not limited to the establishment of communities of mourning such as a Facebook group, a Discord server, or a subreddit dedicated to the memory of a deceased person, which corresponds to Bratton's view of physical spaces being represented by virtual spaces. Finally, there is a *cultural expansion* (Wagner, 2018:4) related to social expansion because the mourning practices in social media and the social media use itself depend on cultural contexts that are increasingly interlinked and interconnected as machinations and manifestations of the spaces, or layers, of The Stack.

Expanding mourning practices to virtual spaces leads to the third theme identified by Wagner, the role of norms for social media mourning practices, because "as in any other social space, specific norms and rules of conduct exist that might impact the way people act, react, and interact with each other" and "at the same time, mourning and the display of grief is and always has been impacted by social and cultural norms, which are also relevant to mourning in social media" (Wagner, 2018:4). Wagner defines *norms* as "implicit or explicit rules guiding behaviours, attitudes, and beliefs within a certain group" that "are communicated between members of a social group and established through the enforcement of sanctions" (2018:3). Norms in social media, then, are constituted just like norms in any other social spaces and can either be implicit (silently agreed upon) rules of behaviour, or explicit rules that state the conduct of a group (for example, groups on Reddit have moderators that moderate, or enforce, these explicit rules, such as that only certain content can be posted on a certain thread). Here we can see that there is a grammatisation of mourning occurring in online spaces – norms and rules of conduct in mourning spaces are formalised. On social media platforms where content is not moderated, however, some users may not adhere to these norms, although research indicates that the longer a user is part of a certain online community the more their obedience to these norms increases.

Although there may be more, Wagner (2018:4-6) identifies three types of norms for mourning on social media – norms on the use of social media (mourning-specific spaces are considered safe spaces for memorialisation and reminiscing, while in mourning-unrelated spaces this is frowned on), norms on content and form of mourning (for example, the display of grief in a religious context on social media is considered inappropriate; there also exists a 'hierarchy of legitimacy' that guides the 'amount' of grieving/mourning that is considered appropriate), and

norms on reacting toward mourning (such as the expectation the bereaved have of others to continually participate in mourning and the social pressure to show compassion). This phenomenon of changing and developing norms and mourning practices on social media platforms is attributed, first, to the appearance of new mourning practices and social situations, and second, the participants' differences in perceived norms that call for "the establishment of new norms or the (re-)negotiation and (re-)affirmation of old ones" (Wagner, 2018:6). From these traditional norms, new norms and a lack of norms can be observed on social media platforms, again indicating how the knowledge and memory of the preceding epoch becomes the baseline for the present epoch.

I sometimes think that the initial phase of my mother's grief following the death of her father was disrupted by the incessant messages on WhatsApp, some being condolences, some of funeral arrangements.

Traditional social and cultural norms around mourning practices dominate mourning on social media, which is attributed to the reconfiguration or adaptation of these norms through the expansion of mourning spaces. Wagner explains that this does not entail the establishment of entirely new norms, but that they "radiate an intended remoteness to traditional norms, while still relating to them to a certain extent" (2018:7). Regarding the norms of reacting toward mourning online, these appear to be especially informed by traditional norms, which are, as Wagner notes, "silently *undermined* by use of the technological features of social media platforms" (2018:7, own emphasis). Owing to the characteristics of social media spaces, a lack of norms – "[f]or instance, the phenomenon of trolling, the posting of photographs of a dead child, or issues of post-mortal identity management" (Wagner, 2018:7) – has become visible that leads to insecurity among users as to how to react appropriately, and in turn calls for the development of new norms for social media mourning. The discussion and negotiation of norms seems to revolve around traditional topics of mourning and less around the new phenomena created by the specifics of social media. Traditional norms pertaining to the privacy of mourning, modest expressions of grief and appropriate ways to remember someone seem to prevail and are often transferred from other contexts to social media platforms. At the same time, media technologies are considered a means to escape social and cultural norms (especially those regarding the duration and temporality of grief) with the option of creating reconfigured sets of norms within social media communities. This is arguably because of collective retentions and intergenerational memory and knowledge transfer (as discussed in Chapter 2), in the sense that the new norm is influenced by the preceding norm and the norm that may follow it within the greater scope of the doubly epokhal redoubling.

3.9 In conclusion

Chapter 2 explored the way in which we make sense of death, the importance of meaning-making and its processes, and how memory and knowledge are transferred intergenerationally. Meaning-making and intergenerational transference are always in process, and in these processes we delineate phases in time which we regard as epochs. When a change in the technical system occurs, a phase shift takes place, what Stiegler calls the doubly epokhal redoubling, where we are 'thrown' into a new epoch and need to reevaluate, rethink, adapt and adopt our making sense of the world, of death, our meaning-making and how we are to transfer this memory and knowledge intergenerationally in order to reach a metastable equilibrium. This chapter (Chapter 3) provided some context to show how the traces of memory and knowledge of preceding epochs partially structure present and futural possibilities – creative, political, social – by concentrating on the becoming of what Stiegler and Rouvroy call the societies of hyper-control. These 'new' types of society contain traces of the disciplinary and control societies that preceded them, especially in how we conceive of space. The work of Bratton (The Stack) and Löw and Knoblauch shows how the conflicting spatial logics, that of the 'old' epoch and the 'new', interlink and intertwine through what Bratton calls the Interface layer or, in another sense, mediatisation. Wagner's work on the mediatisation of mourning shows how mourning spaces and practices have expanded to the virtual, where traditional mourning norms have left traces that influence the behaviour of those mourning online – whether adopted or adapted, or (purposely) forgotten.

Where this chapter focused on collective transindividuation (alongside the technical system), Chapter 4 focuses on psychic transindividuation in terms of identity and digital identity formation as traces or tertiary retentions, and what this means for making sense of death and mourning.

Chapter 4

The disruptive effects of digital technology on identity formation, meaning-making and individuation

> It is necessary to speak of the ghost, indeed to the ghost and with it, from the moment that no ethics, no politics, whether revolutionary or not, seems possible and thinkable and just that does not recognize in its principle the respect for those others who are no longer or for those others who are not yet there, presently living, whether they are already dead or not yet born. (Derrida, 2006:xviii)
>
> Only when one is able to see collapse as the obliteration of memory, identity, and as the end of a world can a new world be imagined. (Berardi, 2015:335)

4.1 Introduction

Our entanglement with digital technology has led to the subject being inflected in a new way – informed by the neoliberal government's production of its subjects through self-interest and investment, along with algorithmic governmentality's production of its subjects "without addressing them" (Rouvroy, 2013:153) – that is, the 'quantified self', also called the 'data self'. This idea relates to people only feeling that they have value when it can be seen as a number or a statistic. Social media platforms are designed to 'inform' the user about, for example, how many likes, follows and subscribers they have and how many times their content has been shared, which leads to thinking about ourselves in terms of this quantification. Neoliberal government's self-interest here relates to both self-marketing and the quantified engagements with us as 'products' that are indicative of our value. In this sense, the processes of subjectivation have become more opaque because they focus on the infra- and supra-individual.

In Chapter 2 I discussed Stiegler's interpolation and extrapolation of the thoughts of Husserl regarding time-consciousness and the concepts of *primary*, *secondary* and *tertiary retention* and *protention*. *Primary retention*, to reiterate, is the retention of the Now A that influences the Now B (the current 'now') which then anticipates the Now C in terms of *primary protention,* or the 'triple intentionality' of moments. *Secondary retention* refers to a memory of the past (A) which is *secondarily protended*, or conjured up, in imagination (C) in the present (B). *Tertiary retention* is the externalisation of memory into retentional apparatuses (A) – the writing down of a memory onto paper, for example – that is archived for future engagement (C), *tertiary*

protention, and interacted with in the present to be conjured up in imagination (B). The pattern, then, is that the present (B) is connected to the past (A) and becomes the future (C).

I also showed why and how Stiegler's conception of the doubly epokhal redoubling is 'doubly' – because it occurs in two stages. The first is the technological *epokhē*, which refers to the specific period in which a particular technology is dominant and transformative, in the sense that it opens up new possibilities as well as changing our understanding of what is possible. Think here of the types of society discussed in Chapter 3, and how energy-technologies 'formed' the disciplinary society, computers 'formed' the control society, and now algorithms have 'formed' the algorithmic society. Second is the *epokhē* of knowledge, which refers to how our understanding of ourselves, our communities and the world changes with the emergence of new technologies, for example spatial refiguration and the quantified self which were discussed in Chapter 3. *Epokhē*, as Stiegler defines it, "refers to both 'a period of time, an era, an epoch', and to an 'arrest', an 'interruption', a 'suspension of judgement', a 'state of doubt'" (2019:12). Grammatisation, discussed in Chapter 2, can be seen as a response to this and refers to the establishment and formalisation of the new norms brought about by the change in the technical system. 'Redoubling' refers to the recursivity of this process in that each transformation and the novel possibilities emerging from our relationship to technics become the new already-there, or baseline, resulting in a never-ending process of self-transformation and redefinition. Finally, 'epokhal' refers to the moment of transformation, suspension, or interruption in technological development, where humans can think critically about their relationship with the new technologies so that an epoch can be established – of course complicated by algorithmic governmentality's bypassing of the subject, as discussed in Chapter 3. The *epokhē* of knowledge is also described by Stiegler as "the constitution of a new transindividuation" (2019:14), with *transindividuation* referring to the mutual transformation and interdependence of individuals, communities and technical systems so as to reach a state of metastability, as discussed in Chapter 2. During the process of the doubly epokhal redoubling, identity and identity formation occur, specifically through processes of transindividuation. In this chapter, I focus on identity formation, subjectivity more generally, and meaning-making as they relate to algorithmic processes, but also, more specifically, as they relate to mourning.

4.2 Identity and mourning

Derrida argues that mourning "consists always in attempting to ontologize remains, to make them present, in the first place by *identifying* the bodily remains and by *localizing* the dead" (Derrida, 2006:9). He describes the human tendency to attempt to make sense of death by giving it a concrete and material form; that is, by identifying the remains and placing them

somewhere specific, like a grave or memorial site, an urn, or scattering the ashes of the deceased. Mourning – in the age of the digital, where we are increasingly entangled with digital technology – has been complicated due to *remains* not being confined to the (bio)bodily, but also confined to the *remaining twin* in the form of a social media avatar, or supra-individual, or in other words, the (digi)bodily remains. Therefore, *identity* itself becomes interrogated: How is it constructed? How is some sense of identity maintained over time, or what does time binding look like for subjects now? Also, in what ways does digital identity differ from (personal) identity, if at all? This is the concern of the first section of this chapter where I consider Franco Faccennini's (2021) and Annemie Halsema's (2021) work on Paul Ricoeur's notion of narrative identity and how it relates to digital identity and digital identity formation. The second section of this chapter covers the problem of a deceased individual's digital identity seemingly continuing to 'live on' and made present, which indicates spectrality relating to the spectral algorithmic governmentality and, moreover, digital identity as a *trace* in terms of survivance as where selfhood emerges. This 'living on' of the digital identity leads to the problem discussed in the third section – that of Stiegler's conception of individuation and how memory is exteriorised in relation to the technical system, as well as how algorithms, digitisation and automation *disrupt* these processes of meaning-making through identity formation and mourning.

Some years after my friend died, I found her Facebook profile with pictures of her and her horse. Though her profile has since been deleted, it must have been there for over six years.

The question of personal identity has been both theorised and scrutinised by many philosophers, although "it is agreed that personal identity consists in that which makes us unique; identical to ourselves and no one else" (Faccennini, 2021:600). Franco Faccennini applies Ricoeur's concepts of *idem-identity* and *ipse-identity* within narrative theory to construct an appropriate description of the phenomenon of digital identity formation. In terms of the offline, we tell our stories by writing about them, as well as verbalising and communicating to others certain events that have transpired and have had an effect on us, or perhaps just conveying our experiences to others, or taking photographs and videos, creating art that depicts a certain narrative of ourselves. With our engagement with digital technology this happens online too: digital technology becomes the medium through which we convey our experiences, important events, photographs and videos, and art. Online, particularly via social media, we convey our narrative by sharing these types of content with others, which has the potential to reach more people than it would have if conveyed offline. There is also a blending of the two, online and offline narrative construction, almost as if the offline construction forks into the online the one way and continues along the other, although the

online and offline narratives remain tethered to each other. These can be viewed as distinct narratives that are bound together in such a way as to become inseparable.

So then, idem-identity refers to the temporal body and psyche, our sameness, whereas ipse-identity refers to our selfhood, which stands as "the principle of permanence in time" (Faccennini, 2021:601). This principle of permanence is akin to what Husserl describes as the time-binding capacity of subjects. In other words, idem-identity is that part of our identity that remains the same over time – coherency and consistency being the keywords here – which allows people to know that this is Naledi and that is John. It is the present 'I' connected to the past 'I' which will become the future 'I'. Ipse-identity refers to the formation and realisation of the self, or the part of our identity that changes over time but does not interrupt the more stable part to such an extent that a person becomes unrecognisable to others. In other words, this allows for a conception of personal identity that retains something recognisable while also being flexible enough that a person's story of their journey and how it has changed them can be incorporated. This also correlates with Stiegler's work on *primary*, *secondary* and *tertiary retention* and *protention*, in the sense that the past 'I' is the retention of the present 'I' which is becoming the protentional future 'I' through, amongst other things, our collective and psychic transindividuations alongside, provoked by and taking place within a technical system. Transindividuation, in turn, relates to Derrida's conception of the *trace* and how making meaning of becoming 'I' alongside friends or family is always-already in a state of mourning by opening up the question of survival, and also a state of survivance. Alongside the technical system, then, this includes the way our identity forms in line with changes in language, writing and, now, digitally mediatised inculcation, automation and algorithmic governmentality. Algorithmic governmentality, according to Rouvroy:

> Contrasts with what we know about a neoliberal mode of government which produces the subjects it needs. […] Algorithmic governmentality does not produce any kind of subject. It affects, without addressing them, people in all situations of possible criminality, fraud, deception and consumption, which are situations where they are not requested to 'produce' anything, and certainly not subjectivation. Rather, algorithmic governmentality bypasses consciousness and reflexivity, and operates on the mode of alerts and reflexes. (Rouvroy, 2013:153)

The Ricoeurian concept of *narrative identity*, which encapsulates idem-identity and ipse-identity, is crucial for considering personal identity in our interaction with digital technology because, as Annemie Halsema (2021:99) notes, "the hermeneutical notion of the self comes closest to the self-articulated on social media". Some of the most prominent social media platforms (e.g. Facebook and Instagram) seem to be modelled on this conception of identity, that is, the main function for the user is to tell their story. This is one way in which the preceding

epoch influences the present epoch: the articulation of the 'I' in journals has become a similar storied version of the 'I' through online posts, avatars and profiles, thus relating to Bratton's conception of how The Stack (Chapter 3) allows for the creation of virtual representations and representational spaces that are physical in nature. It is important to note that Faccennini applies Ricoeur's formulation of narrative identity, traditionally in the offline domain, to the digital.

Halsema (2021:100) follows a similar line of thought and describes narrative and digital identity as forms of discursive identity – "a view on identity in which the self is not considered in an essentialist manner as stable and unified, but rather as plural, constantly negotiated, fluid, and enacted through the participants' discourse". Digital identity is continuous with narrative identity, although it should also be studied as a distinct phenomenon, as digital identity has certain key differences from narrative identity (Halsema, 2021:100). In other words, digital identity formation occurs both simultaneously *and* alongside narrative identity formation. The first of these is that digital identity favours temporal recency above sequential temporality, meaning that digital identity formation factors in the newest, most recent part of the story in terms of conveyance, rather than taking all sequences into account. The second difference, in terms of who 'tells the story', is that digital identity tends to have multiple narrators as it favours interactivity above the gathering of life events (a function of narrative identity). Interactivity, which includes spectatorship and relational aspects such as total 'likes', which is part of what Rouvroy calls the "quantified self" (Chapter 3), is favoured above the stability of temporal sequentiality. This is a spectrum, however, as it depends on who controls the text, for example a blogger controls the text of their blog whereas on Wikis multiple users can contribute equally. A third characteristic that I am inserting here is *instantaneity*; we get instant feedback from others on our process of identity formation, on our 'stories', on the digital identity which is a *trace whose purpose is to survive us* (survivance, tertiary retention), providing opportunities for making sense and meaning of our and others' existence. Another characteristic, in terms of Stiegler and disruption, is the forgottenness of these traces or tertiary retentions of our identity in digital objects: tertiary identity in the memories that we store is often left unused and forgotten, *because virtually everything about us is stored online*, which makes tertiary protention a near impossible feat; that is, we are unable to archive our digital identity. In this sense, it is a disruption of our intergenerational memory, a short-circuiting of the long circuits established through generations upon generations of identity formation as a meaning-making practice – *the crafting of narrative (identity) as a process of making meaning*.

The overarching difference between digital and narrative identity formation that Halsema (2021) argues for is that digital identity functions in terms of *self-exposure*, and not only in

terms of self-expression like narrative identity. Halsema applies the concept of *exposure* utilised and explored by Judith Butler as well as Adriana Cavarero's work on Hannah Arendt.

> [Butler] considers the 'I,' that gives an account of itself and that we have called a narrative self, as implicated in the social conditions of its emergence, "in a social temporality that exceeds its own capacities for narration". (Butler cited by Halsema, 2021:110)

In our engagement with digital technology and social media platforms, we enter this social temporality that Butler describes as exceeding its own capacities for narration. Exposure, for Butler (2005:31), reading the work of Cavarero, refers to how we are beings that are exposed to each other in our "vulnerability and singularity", as we can only convey our life story [autobiography] to another. This means that this process is always relational because we are positioned in relation to others, as well as to cultural and political discourses, and so also indicates that certain identities and bodies are privileged and more visible than others. This correlates with Derrida's notion of survival as discussed in Chapter 2, where he references Daniel Defoe's novel, *Robinson Crusoe*, which is a journal or autobiography of the titular character, or the 'hero'. The story that is conveyed to the other comprises our meaning-making amid the haunting of our death and the death of the other, which haunts them as much as it does us. In this sense, our stories are just as important as the stories of the others that exist beyond us as *survivors.* This also occurs in relation to the temporal aspects of social life that transform our experiences and understanding of the world and which are difficult to account for in narration – grief and trauma, for example.

> [Cavarero] reads Arendt's "hero," who according to her is often accused of exhibitionist narcissism, as a fragile and unmasterable self that exposes itself in its uniqueness. It is a self of action and a narratable self, Cavarero concedes, that is completely given over to others. "In this total giving-over there is … no identity that reserves for itself protected space or private rooms of impenetrable refuge for self-contemplation" she claims. (Cavarero cited in Halsema, 2021:111)

Arendt's concept of the hero refers to an individual who distinguishes themselves from others, not through individual achievement and glory but through selflessness and being devoted to a higher cause. In the words of Tassinari, Piredda and Bertolotti (2017:S3493), the hero is one who "[a]s he has found his role in society, he has also found himself", and so, "Arendt sees this as the meaning of the word 'hero'; not a superman, but rather one who contributes to the construction of the public sphere" and one "who assumes responsibility in society". The hero, for Cavarero, is fragile and unmasterable, and their devotion to others and higher causes is indicative of exposure; that is, the hero is exposed because they are more visible as a result of their uniqueness. Because their heroic actions and accomplishments are motivated by a

responsibility to their community, they are completely given over to others. Similar to the way Derrida describes the character of Robinson Crusoe – the purpose of his journal, his story, is to survive him in the face of his impending death – *for the other to remember him*, *he gives himself over and exposes himself*. It is in exactly this way that digital identity *is* a *living dead trace* for the purpose of survival.

We also give ourselves over to others, exhibiting ourselves as heroes of our life stories, exposing ourselves *for the other to remember us*. In these ways we find that, as Butler explores in *Giving an Account of Oneself* (2005), identity is entangled with ethics. Instead of gathering life events and constructing the self temporally through self-expression, in the digital we fragment and lose the self through a hyperquantified self-exposure and, in fact, *overexposure* (Halsema, 2021:112), because *everything* we do online becomes *traces*, spectres, which are often forgotten because of this mass tertiary retention or digital data.

4.3 Identity, mimesis and Ricoeur

Concerning the construction of narrative identity, Ricoeur refers to three types of mimesis: mimesis_1, mimesis_2 and mimesis_3, which are prefiguration, configuration and refiguration, respectively (Sheerin, 2009:45). Prefiguration is the capability of the field of human action to be put into narrative, while configuration refers to the narrating of these actions or, in other words, the constructing of the story. Refiguration requires a reader of or a spectator to these stories. On social media platforms, prefiguration happens primarily offline (or used to), while configuration occurs online by means of posting a text or visual media, and refiguration online takes place with other users of the platform reading, spectating and even engaging with these posts. This threefold mimesis process has, however, been complicated by *configuration and prefiguration being conflated* as a result of the disruption in the ego-formation process. Rouvroy's description of the infra- and supra-individual indicates that the prefiguration and configuration of (online) identity happens *instantaneously* as externalised memory; think, for example, of clicks, likes, dislikes, reactions, comments, following and subscribing to certain content, which externalises characteristics of the user's identity in the form of raw data points and numerical relations (a hyperquantification of personal interests) into the infra-individual.

The supra-individual, being a profile constructed from these numerical and raw data points, is one that undergoes the threefold mimesis process in terms of prefiguration and configuration instantaneously, enveloping a kind of duplicate identity to the one offline – again, tethered to but distinct from it – or a trace that survives us. Faccennini (2021:603-604) distinguishes three types of digital configured identity – transparent, filtered and opaque. The first refers to one that serves as a representation of the user's offline identity and the third to one that is no

representation at all. The filtered digital identity lies between these states with differing degrees of representation. For Faccennini (2021:612), “our digital identity is not our personal identity; best case scenario, it is but an embellished representation of it”. The problem is the cognitive illusion of “what you see is all there is”, described by Daniel Kahneman, which we are all susceptible to (Kahneman cited in Faccennini, 2021:612). Faccennini explains that we tend to mistake digital identity for personal identity. In this sense, we become hidden – the real offline personal identity is hidden by its online representation, by its trace that is to be a memory left behind that survives death. This corresponds to Bratton’s work on The Stack, where the virtual creates representations of the physical/actual as discussed in Chapter 3.

In the digital domain this process leads to new ways of meaning-making. Posts, or in the words of Faccennini (2021:604), *publications*, show the intention to represent oneself online (configuration). This is the subjective dimension of meaning for Faccennini (2021:604). Refiguration in terms of likes, follows, or the lack thereof, which show the relation between avatars, is the intersubjective dimension of meaning (Faccennini, 2021:604). This correlates with algorithmic governmentality’s focus on the infra- and supra-individual by attesting to reflex, and neoliberal government’s complicity/parallel with this in terms of the quantified self. As Faccennini (2021:604) notes, “[l]ikes and follows can be thought of as hypersimplified forms of judgment”. Another correlation is what Faccennini (2021:604) calls the objective dimension of meaning, which refers to the possibility of our online activity being analysed objectively. In algorithmic governmentality, this leans toward a negative view on the matter as these analyses are utilised to control our potentiality. Faccennini (2021:604) regards this objective dimension of meaning as interesting, as “[social networking sites] visibilize the previously – mostly – invisible networks of social relations”, which can and are used to collect more data on and further construct the supra-individual and its relationships with others. This objectivity can however be questioned, as machine learning algorithms can reinforce underlying social inequalities (Binns, 2017:545-546) – meaning that (subjective) biases can be learnt and incorporated into their analyses and, in terms of feeding the user, provide a more curated experience.

In summation, Faccennini’s and Halsema’s work on Ricoeur’s narrative identity is concerned with applying it to the digital domain. For Halsema, digital identity flows continuously from narrative identity with crucial differences, while for Faccennini, digital identity is an embellished representation of personal identity. It is unclear, however, whether Faccennini distinguishes between personal and narrative identity. My interpretation is that for Faccennini they are synonymous. Although there are differing conclusions about what constitutes digital identity, some similarity stands out: loss, fragmentation and becoming hidden. Identity becomes

hidden, the self is fragmented and lost through self-exposure for Halsema and embellished representation for Faccennini. Digital identity is a constellation of traces of the social media user's narrative identity – an externalised and curated memory the purpose of which is to survive the individual, similar to Crusoe's journal, and so, like a grave site, to be interacted with by others when mourning the individual's death. Hence, we do not know the personal identity of the social media profile – transparent, filtered or opaque – moreover, even the transparent avatar cannot be mistaken for the personal identity. We know, yes, but we do not know. The personal identity steering the avatar is both present and absent. We can name the personal identity, but we also at times cannot. We only know what we see, how identity refigures, what we spectate. We can even go as far as to claim that we spectate ourselves – we are fragmented.

4.4 Hypermimesis, recursivity and grammatisation

There are, however, more recent conceptions of mimesis following what Nidesh Lawtoo calls *the mimetic turn*. Based on the *Homo Mimeticus* project, the *Journal of Posthumanism* released a special issue on *Posthuman Mimesis* (2022), which includes some of the work of other posthumanist thinkers such as Francesca Ferrando, Steven Shaviro and N. Katherine Hayles. For Lawtoo (2022:87) and other contributors to this special issue, the aim is to rethink the concept of mimesis as posthuman, immanent and embodied, contrary to idealist (Plato) or aesthetic/anthropocentric (representation) perspectives. Thus:

> Contrary to dominant idealist interpretations in western thought, mimesis is not simply opposed to truth, as a copy is opposed to the original, or a shadow to light, as Plato made clear at the dawn of philosophy. Rather, mimesis is also an immanent force, power, or *pathos*, that, as Nietzsche was quick to sense at the twilight of metaphysics, opens up subjectivity to external influences, material processes, and flows of becoming – be they good or bad, human or nonhuman, natural or technological. (Lawtoo, 2022:88)

When thinking about how the social media avatar, or a person's digital identity, is a mimicking of the offline personal identity, it is clear that Faccennini's perspective is that of a disembodied representation. For Lawtoo (2022:88), however, we "encounter a world of becoming animated by double identities", which is both an embodied process *and* an individuation, or sometimes also a transindividuation, as would be the case for the transindividuation of the collective and the technical system. In a more personal sense, our "double identities" – online and offline – transindividuate alongside each other as well. Important to note here is the posthumanist insistence on the decentring of the human; that is, the human is not at the nexus of the personal-digital identity, but there is a mutual and deferring becoming between the human

(personal) and nonhuman (digital) counterparts of this double identity. This then relates to what Lawtoo calls *hypermimesis*, which

> … considers the affective power of hyperreal simulacra that have nothing to do with reality (digital simulation, video games, avatars, but also online conspiracies, fake news, big political lies, deepfakes etc.) to retroact, via spiraling path-logical feedback loops, on the material psychic and embodied lives of posthuman subjects that may be living second lives online. (Lawtoo, 2022:95)

Phrased differently, "it is in fact no longer clear who is imitating who, via what means, and to what ends" (Lawtoo, 2022:94). Hypermimesis is thus the "spiraling loop in which a hyperreal simulation retroacts on the reality of mimetic bodies and minds" (Lawtoo, 2022:95). It is a recursive process that correlates in some way to how Stiegler describes the doubly epokhal redoubling – the current epoch (B) mimics the previous epoch (A) and is influenced by the (future) mimicking of the following epoch (C). Computer algorithms also function in terms of recursivity and, as Aragorn Eloff has remarked, while it may seem that deep learning processes recursively use our data to statistically infer certain outcomes, it may in fact be us who are being trained by them, that it is us who mimic their recursive processes. As he explains in terms of DeepDream, the well-known adversarial neural network (ANN) that was created in 2014 by a Google engineer, rather than

> … categorising input images based on what it has learned, DeepDream modifies the input images to reflect this learning – a kind of algorithmic pareidolia. Here, it has been rhetorically observed that the neural network is hallucinating, but who is the real subject of hallucinations in the Algocene? (Eloff, 2021:188)

If we briefly return to the spectrality of algorithmic governmentality, as described by Rouvroy and explored in Chapter 3 of this study, hypermimesis may explain the recursivity of the haunting experienced by posthuman subjects: our data are collected and reconstructed (mimicked) into/as a supra-individual, we are bypassed as subjects. In short, we 'purchase' and 'sell' ourselves in a spiralling loop of recursivity.

Think of a Spotify subscription, for example. We pay a monthly fee for our data in terms of music (or podcasts) to be collected which is again 'fed' to us. This happens over and over; recursively, music and other 'new' content are suggested to us based on what is collected (supra-individual, data-profile), becoming the new baseline for what is collected and then fed again.

Our data, as tertiary retentions, as *traces*, continuously haunt us as the 'new' suggested music sounds similar, most likely in terms of genre classification. For Stiegler,

> … the current and very recent hegemony of the industry of traces *is what attempts* to control […] unbound drives through automatisms founded on social networks while at the same time functionalizing *them*, that is, making them serve a 'personalized' stimulation of the consumerist drive, via mimetic mechanisms that, however, only end up making these drives more uncontrollable, contagious and threatening than ever. (Stiegler, 2016:24)

Here Stiegler writes about the personalisation of social networks: that it is through the data that are collected from the user that it can mimic the user (supra-individual), as well as through "mimetic mechanisms" that contribute to reacting to alerts ('dopamine hits') uncontrollably. This relates to grammatisation as well, which in short is the formalisation and standardisation of writing, which was explored in depth in Chapter 2. Matt Bluemink writes that:

> The key aspect of grammatisation is therefore not only the individual *exteriorisation* memory but the *discretization* of the flow of memory in general; it is concerned with the repeatable, reproducible nature of mnemotechnics as a whole. (2015:n.p.)

Grammatisation includes the transference of memory (anamnesis) to the external object (hypomnesis), which in the case of social networks is not just writing in terms of posts online, but the very code and data on which they function. Here anamnesis refers to the interior, living memory and hypomnesis to the placing of the memory 'outside' oneself, the dead memory. Through the processes of grammatisation we are able to access these (think of the example for tertiary retention and protention in Chapter 2) which "improves memory" (Bluemink, 2015:n.p.). This is the positive function of grammatisation, yet it can "potentially damage the anamnesic memory" (Bluemink, 2015:n.p.), that is, it is a *pharmakon* – a poison and a cure at the same time. If we lose access to the hypomnesic, exterior memory – whether it be through loss or forgetting, or simply when it's not being used (short-circuiting) – we open up a space where knowledge through mimetic consumerist activity is continually stored but not remembered. This is a disruption of grammatisation in its positive sense.

4.5 Stiegler and Derrida on identity, individuation, death and mourning

For Derrida, the spectre is invisible, although it may not seem to be the case here, as we see this representation of ourselves online whether transparent, filtered or opaque. Derrida (2006:7) writes about the *visor effect*:

> The armor may be but the body of a real artifact, a kind of technical prosthesis, a body foreign to the spectral body that it dresses, dissimulates, and protects, masking even its identity. The armor lets one see nothing of the spectral body, but at the level of the head and *beneath the visor*, it permits the so-called father to see and to speak.

Derrida refers to the spectre of Hamlet's father inhabiting armour which allows for him to speak. It is through this visor that the spectre is able to communicate in language, to have a voice. The social media avatar, then, serves a function of a "technical prosthesis" that also masks the identity of the user – the *visor effect*. It is our avatars, our representation online, that allow us to interact with each other in the digital domain – our visor allows us to configure ourselves. This can also be thought of as being a part of the Interface layer described by Bratton (discussed in Chapter 3). The Interface layer refers to that which connects the physical and virtual spaces like smartphones or computers and their peripherals, but also the software interfaces of social media, applications and so on, following Hui's understanding of 'digital objects.[2] In this case the Interface layer, specifically the avatar connected to and viewed through hardware, is the technical prosthesis connecting the real and the spectral, a suit of armour that, especially from the perspective of the virtual, obscures the personal identity, that is, making it spectral, as we do not know for certain *what* lurks behind it, whether there is necessarily *someone* there. In lieu of algorithmic government being spectral because it bypasses the subject while affecting people (Rouvroy, 2013:153), where identity is concerned spectrality is redoubled. This, then, explains why the digital identity of a deceased individual seems to 'live' – perhaps because it retains a sort of subjectivity. Within the doubly epokhal redoubling discussed in Chapter 3, there is also a doubly spectral redoubling, so to speak, that is also recursive. Digital identity, then, is a present-absent, *living dead trace* (Chapter 2), the purpose of which is to survive us in our anticipation of death, allowing for transindividuation through the engagement with our tertiary retentions *that are constructed as a digital identity*. In terms of mourning the dead, then, rather than visiting the site where someone is buried to engage with them, to transindividuate alongside the dead other, we now, as a result of the mediatisation of mourning discussed in Chapter 3, engage with the avatar of the deceased person, which is the living dead trace that survives them. Derrida writes as follows:

> Like every trace, a book, the survivance of a book, from its first moment on, is a living-dead machine, surviving, the body of a thing buried in a library, a bookstore, in cellars, urns, drowned in the worldwide waves of a Web, etc., but a dead thing that resuscitates each time a breath of living reading, each time the breath of the other or the other breath, each time an intentionality intends it and makes it live again by animating it (Derrida, 2002:131)

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[2] Hui makes a distinction between Simondon's 'technical objects' and what he describes as 'digital objects'. In his words: "What I call digital objects are simply objects on the Web, such as YouTube videos, Facebook profiles, Flickr images, and so forth, that are composed of data and formalized by schemes or ontologies that one can generalize as metadata" and "Digital objects are not simply bits and bytes, as proposed in the digital physics or digital ontology in the works of Edward Fredkin and Stephen Wolfram. Digital ontology consists of two main concepts: first, that bits are the atomic representation of the state of information; and second, that the temporal state of evolution is a digital information process" (2012: 380-381, Hui citing Floridi, 2009).

For mourning purposes, the digital identity – in the form of the avatar – allows for this "breath of living" to be shot through the deceased digital traces. However, when we think speculatively about the Microsoft patent, discussed in Chapter 3, involving chatbots mimicking the deceased so that they can be engaged with, they *are not shot through with a living breath*: only the armour (also Interface, Chapter 3) is *not* animated with life, but through computational technologies, *automatised* – a construct that is no more than a datapuppet, an automaton. This type of mimicking of the deceased disrupts transindividuation, that is, the individuation alongside the dead other, by engaging meaningfully with their traces. Individuation, as discussed in Chapter 2, is for Stiegler psychically the becoming 'I', and collectively the becoming 'we', and transindividuation is the individuation alongside each other or the technical system (language, norms, technology). According to this formulation, identity is no longer fixed but is always in flux, although it reaches states of stability with the help of retentional apparatuses such as moral, religious, aesthetic, and philosophical frameworks, which allow for the establishment of norms, conventions and constellations through the grammatisation of what makes one unique and 'identical to oneself' – whether in the psychic ('I') sense or the collective ('we') sense. Stiegler writes:

> Grammatization is a war waged on spirits [*esprits*] via the technical development (individuation) of systems of tertiary retentions. It characterizes the process of psychic and collective individuation constitutive of the *unity of the Western world*, and it is spreading increasingly, by way of adoption, into *industrial* societies in general. *Its history is that of a succession of losses of individuation*, as well as of *displacements of the capacity for individuation as a negentropic and idiomatic power*. Today, this history is entering its hyper-industrial stage, which I argue constitutes a limit to the process of Western individuation – and, in this respect, the end of the West. (Stiegler, 2014:56; author's own emphasis)

As a result of globalisation, non-Western industrial societies are adopting the psychic and collective individuation processes of the Western world. In Western societies, for Stiegler, individuation is becoming gradually lost as it undergoes grammatisation. Stiegler (2019:59) describes the history briefly: during antiquity the individual was a *citizen*, thereafter becoming a *believer* as Christianity was inserted into the individuation process of (the then) democratic society. Owing to the first industrial revolution during the 19th century, the believer became a *worker,* which indicates the increasing entanglement with the machine: "[b]ut, as this worker is *progressively dis-individuated by the machine*, the *devaluation of work* becomes unstoppable – from the 'fragmentation of work' to the *stress* of the senior executive, now increasingly demotivated and instrumentalized" (Stiegler, 2014:59). And so, for Stiegler, "in the hyper-industrial society, the individual is essentially a *consumer*" (2014:59; own emphasis). As our entanglement with technology (the machine) increases, individuation is lost:

with the advent of industrial society the believer became a worker and has become "demotivated", and now, in a hyper-industrial society, the demotivated worker has become a consumer.

In a hyper-industrial society our retentional apparatuses have become disrupted and this has serious consequences for the formation of identity: identity is disrupted from its metastable equilibrium, becoming fragmented as our individuation processes are being lost in line with our increasing dependence on digital technology. Moreover, the disruption of our retentional apparatuses indicates a disruption of mourning: *how we mourn* (according to Derrida) – with the process of identifying the dead, that is, externalising the memory, making the deceased present, being complicated by the disruption of transindividuation.

In the process of (trans)individuation, knowledge as such emerges. Because of the disruption brought about by the present technological epokhē, Stiegler writes on individuation by means of identification through mass refiguration; and on potential, and "the entropic fate of the universe" (becoming one) as follows:

> The more viewers see the same thing, the less the criteria with which they are selecting what they retain in what they see varies from those who, together with them, compose the 'audience', that is, the mass of viewers. […] In this way, it became possible to massify behaviour and to short-circuit the collective protentions constitutive of an epoch – because this retentional interiorization leads to processes (triggered by marketing) of 'identification' with the behaviours, brands and labels that typify this absence of epoch, in so doing ruining processes of psychic and collective individuation. (Stiegler, 2019:23)

> The horizon of expectation common to psychic individuals who live in the same epoch presents itself to them positively as that which contains their future in potential, insofar as this is something constantly renewed, and as such always new, thereby constituting the future properly speaking inasmuch as it is always unlike the present or the past. As such, the future [*avenir*] is unpredictable, bearing the improbable and the unknown that Heraclitus called the anelpiston – the unexpected, the unhoped-for. And it does not reduce merely to becoming [*devenir*], which today we understand to be the entropic fate of the universe: anelpiston is the différance of a becoming that is itself entropic, that is, a foregone conclusion, where everything will return to dust and where 'unto dust shalt thou returne'. (Stiegler, 2019:20)

For Stiegler, digitisation disrupts our capacities for collective protentions in terms of transindividuation, as well as knowledge emersion and transfer through intergenerational memories, because of the massive amount of tertiary retentions that we are unable to collectively protend. Although the internet is replete with almost all produced knowledge, such knowledge is often engaged with superficially and fleetingly. Moreover, these massive amounts of tertiary retentions are comprised of the immense amounts of data collected by

digital technology and algorithms, which are (humanly) virtually impossible to archive. This results in considerable numbers of memories being forgotten, or short-circuited. Such memories include our digital identity, as discussed earlier in this chapter. Think here of the algorithms that automatically suggest curated content to the user – the user is prompted in subtle but sophisticated ways on what to retain and archive from these massive amounts of data and tertiary retentions which then, inadvertently, form the user's identity based on what they have been 'fed', thus short-circuiting psychic and collective individuation. Short-circuiting here can be seen as a disruption to the process of individuation *as well as* a 'shortcut' to instantaneously becoming the 'I' or 'we' the user is fed to be. Seen in another way, our digital identity imitates us and we imitate it – though it is unclear who is imitating who; that is, hypermimesis. This relates to algorithmic governmentality's control over potentiality – *possibilities of becoming* – or in Stiegler's formulation, individuation processes are disrupted as a result of the predictability and mass refiguration that results in streamlined identification, which limits the possibilities of becoming 'I' and 'we'. For example, advertisements on the internet scattered over a website or application, clicking on these advertisements, or viewing YouTube clips, the personalised feed for news, events and other content are all an indication of how our needs and wants are anticipated and predicted by the algorithm owing to its focus on the supra-individual, as well as this duplicate identity, the digital double, functioning *automatically* to provide us with curated content. This shows how our retentions and protentions – psychic and collective – have been automated, and short-circuited. As the algorithm focuses on quantity and digital identity favours recency, leading to, for example something going *viral*, reaching massive numbers in views, likes and clicks in a short time, "[t]he more viewers see the same thing" (Stiegler, 2019:23), which is indicative of a mass refiguration of identity, or the 'quantified self'. This in turn leads to behaviour becoming massified and identity taking on a certain sameness – streamlined – or rather, an identity*less* identity based on likes, wants, needs, clicks and the like. And so, for Stiegler,

> [t]he liquidation of protentions occurs in a structural way insofar […] psychic and collective protentions are being replaced by purely computational automatic protentions – eliminating the unhoped-for, essentially destroying every expectation of the unexpected, and thereby attenuating every form of desire. (Stiegler, 2019:20)

And also

> … the absence of epoch […] is sending us mad – mad with sadness, mad with grief, mad with rage. (Stiegler, 2019:20)

For Stiegler (2019:20), collective protentions that "[bear] a future charged with new potential" are being liquidated – divided and shared through, for example, mass refiguration online. This

liquidation is in turn based on the liquidation of the possibilities for idealisation and identification (Stiegler, 2019:20), or, in other words, identity and ideals are stripped of themselves – streamlined. What happens with an individual after the death of a friend, a loved one? It is generally accepted that they experience feelings of sadness, grief and rage. In my reading of Stiegler, then, the absence of epoch is a *death by disruption*. This disruption is brought about by the protentions of computational automatons, which replace our collective protentions in favour of the inscrutable predictability of near-perfect precision. When we mourn, we attempt to ontologise the remains through identification; however, if identity is streamlined into a sameness, 'One', and our protention, mourning, is disrupted, we must find a new approach to mourning or to archive the dead.

As noted earlier in this chapter, Derrida (2006:9) writes that mourning "consists always in attempting to ontologize remains, to make them present, in the first place by *identifying* the bodily remains and by *localizing* the dead". Derrida describes here the tertiary protention of the dead, *to archive the dead*, in order for us to have the capacity to mourn and make sense of death. With regard to identifying the bodily remains of the spectre – of identifying ourselves online and offline – this presents a difficult task because we do not know "who is buried where" (Derrida, 2006:9), because we are fragmented, lost and hidden. For this identification to take place, we have to be aware of the traces we leave behind. These traces are our digibodily remains which are scattered throughout the digital domain. And we have to *identify* them. We have to *localise* them; by knowing *where* the bodily remains are buried we can start to identify *what* is buried so that we can start the *work of mourning*:

> There is nothing worse, for the work of mourning, than confusion or doubt: one *has to know* who is buried where – and *it is necessary* (to know – to make certain) that, in what remains of him, *he remain there*. Let him stay there and move no more! (Derrida, 2006:9)

Archiving the dead other's identity, or the tertiary protending of the dead other's tertiary retention, is crucial for the transference of intergenerational memory and knowledge: generation 'B' is influenced by the preceding generation 'A' and the following generation 'C' in a recursive manner. Our norms and practices for archiving the dead are themselves tertiary retentions that may outlive our existence in the same way that identity formation practices and processes, which are tertiary retentions, are transferred to the following generation which may adopt or adapt them. Mourning and its processes, in this regard, may again be adopted or adapted. But we must know *who* – we must identify the dead. With the disruption brought about by our continual engagement with digital technologies, as Stiegler describes, there is a tendency to become One – where identity is streamlined, liquidated and stripped of its unique parts.

My partner shared that he felt 'weird' at seeing the photos of his brother on Facebook; it was as if he saw his brother in a way that was not akin to how he knew him. Now and then someone posts on his wall to tell him how much they miss him.

Heidegger's thought on the authenticity of *Dasein*, as discussed in Chapter 2, where death-as-a-possibility individualises *Dasein* and separates it from the One, is key to understanding the implications of the tendency to become One in relation to digital identity. We can also infer that, as discussed earlier in this chapter regarding Butler's notion to "give an account of oneself", is for us to realise such an authentic and ethical existence in terms of our identity. The virtual mimicking of the personal, 'real' identity online is more often than not a 'giving of a *curated* account' of oneself – stripping and liquidating our identities for the purposes of consumption in terms of likes and follows, or rather the 'quantified self' as Rouvroy describes it. With the disruption of our meaning-making practices, such as how our identity is constructed rather than 'organically' formed, there occurs what we may call a *botched (trans)individuation.* Although hypermimesis can perhaps explain why we give, online at least, a curated account of ourselves, where we regard the digital identity as a nonhuman 'entity' that we trans/individuate alongside us and from which we decentre ourselves, there is no clear delineation between who imitates who: hence, a double identity.

4.6 Some factors to consider when archiving the dead double

Patrick Stokes, in thinking about the work of Luciano Floridi regarding the ethics of online privacy, provides another perspective on how to view digital identity, or the identity forming tertiary retentions in the digital realm. Although they do not use these terms, there are some correlations. The social media profile, posts, photos, videos, and other such content are, for them, *informational objects* – that is, objects that store (personal) information:

> Against the ownership model, Floridi commends an account of informational objects not as being *owned* by the user but as being *constitutive of* the person: My information is not simply *about* me, my information *is* me. (Stokes, 2019:81)

The correlation between Stiegler's concept of 'tertiary retention' and the concept of 'informational object' lies in exactly the way that memory and knowledge, or information, have been externalised or stored in an object. The conception of informational objects as constitutive of the person holds massive ethical implications, as described throughout this dissertation, for, amongst other things, the disposal of the deceased's digital traces in terms of the social media profile. As an aside, in a posthuman sense, with regard to hypermimesis and the double identity, one may ask whether it is ethical for the posthuman subject to act as another's nonhuman double, and whether this double can be 'owned'.

For Stokes, the informational objects of the dead other are crucial in thinking about new norms for dealing with the dead's digital remains, or *digital residues*. Elizabeth Hallam and Tamara Kohn describe death's residues:

> Decomposition of the human body […] generates potent material residue that persists in the aftermath of death. This residue is not static but is morphing in material form as well as changing in meaning. Residue in this respect is mobile and shifting. (Hallam & Kohn, 2019:4)

Residues can be likened to what Derrida calls the *trace that survives us*, as discussed in Chapter 2. The trace and the spectre may be engaged with through a technical prosthesis such as the armour that enables Hamlet's father to speak. In this sense, the technical prosthesis – a visible and material object – and the invisible traces with material affects are, in combination, what the concept of *residues* refers to, as Hallam and Kohn also note that residues are not confined to a deceased's corpse.

> Death's residues also manifest at different scales, ranging from one person's body to mass deaths, entire cemeteries and massive columbaria, from one email account to an entire lifetime of accumulated digital footprints and mega data sets relating to the documented lives of deceased millions. (Hallam & Kohn, 2019:3)

> Digital technologies produce, record and archive traces of the dead, and when kept in active digital spaces, such residues become animated through the continued interactions that the living conduct with them. (Hallam & Kohn, 2019:11)

The dead's digital residues have, for Stokes (2019:83), phenomenality and persistence. When engaging with the digital residues, like the social media profile, we perceive that something of the deceased person in the content, whether visual or text, 'lives'. This is the trace that Derrida describes as present-absent, or in Stiegler's terms, the externalised memory of the person existing in the object. Unlike the physical corpse, the digital residue is able to persist virtually for an infinite amount of time, although it is "vulnerable to deletion, format obsolescence, storage media failure [and…] as Heidi Ebert argues, vulnerable to a particular form of effacement" (Stokes, 2019:84). This effacement refers to how the social media profile is altered – or, overwritten – by new emerging mourning practices such as posting on the deceased's Facebook wall, which, in a sense, has replaced visits to and placing flowers on a tombstone (Stokes, 2019:84-85).

Stokes outlines four factors for consideration when developing new norms for the disposal of digital remains. The first, *extent of survival*, refers to how a social media profile is a collection of various media and information relating to a unique user, and so the profile as a whole needs to be regarded as something with moral weight when considering an ethical way to deal with

these types of remains (Stokes, 2019:86). If we think about Crusoe's journal as described by Derrida to conceive of *survivance* and *trace* (Chapter 2), the social media profile is as much a curated collection as the journal entries of Crusoe. The collection of photos, videos, text and other posts that survives the deceased user tells us something about their identity. Regarding the second factor, *depth of phenomenal presentation*, Stokes notes that "both the sort of claim a digital remains artefact may have to preservation (and the form such preservation will take) will partly depend upon the extent to which the artefact preserves the phenomenality of the deceased" (2019:86). In other words, as long as digital remains comprise a collection of traces, or memory and knowledge, that is externalised (tertiary retention) for the preservation thereof, they also preserve the 'life' of the deceased. In this regard we are able to convene with the living dead traces of the deceased, or *mourn* online. Of import is Derrida's notion that we should engage with these traces in order to mourn without interiorising the dead other, because this leads to a de-othering of the other. This in turn correlates with Heidegger's notion of authenticity as an ethical mode of being. In terms of Stiegler, the phenomenality that persists within the digital remains is what allows us to transindividuate alongside the dead other, or mourn, as discussed in Chapter 2. It can also be seen as the identity double of the deceased that imitates them, even post death. This leads to the third factor, *accessibility*, in terms of which we need to be able to access this phenomenality, the traces, the tertiary retentions that are the deceased's social media profile, in order to deal with it, transindividuate alongside it, to mourn the person (Stokes, 2019:86). This is, however, complicated by the disruption to the positive function of grammatisation, as we are prone to 'forget' the digitally stored memories, or leave them unused. The fourth factor we need to consider, and for Stokes perhaps the most important, is the *vulnerability* of the digital remains *to being overwritten,* as the family of the deceased Facebook user has the option to delete their profile, or post messages on the deceased's wall, which itself has the ability to become a space for mourning (see discussion of Wagner in Chapter 2). Accordingly, we need to think about the implications of this type of overwriting, and whether it would be more ethical to preserve the social media profile *as is* (2019:88).

4.7 Conclusion

With the conception of *Dasein* as a Being-towards-death, Heidegger underscores the importance of making meaning in life, which includes making sense of death. These memories and knowledge may exceed our own existence and are therefore transferred intergenerationally. For Stiegler, this transference is crucial for the processes of individuation – psychic, collective and technical – although these individuations always occur alongside and inform another at the same time, that is, they transindividuate. When this occurs, a phase shift

in the social-technical system takes place which Stiegler calls the “doubly epokhal redoubling”. What he means by this, in the main, is that this kind of disruption needs to be reintegrated into the social-technical system in order to make meaning and to continue the healthy practices of memory-making, including transgenerational memory transfer. This is done via collective transindividuation by which the traces of preceding epochs are incorporated into and transformed by the current epoch. It has become clear, however, that digitality – the virtual – has brought about unprecedented changes in contemporary spatial logics. These changes have had a knock-on effect on how we understand death and practise mourning, the latter of which is becoming increasingly mediatised and thereby spatially expanded, even though many norms for mourning are still informed by more traditional practices.

The current chapter moved from the spatial to the psychic by investigating processes of identity and digital identity formation. In particular, I attempted to understand how virtual subjects and data subjects create a sense of cohesion and consistency in their identities over time, especially given what Rouvroy says about the infra- and the sub-individual. Drawing on the Ricoeurian concepts of *narrative identity* and *mimesis*, I argued that although digital identity is in some ways continuous (occurring alongside and simultaneously) with narrative identity, it has a number of key differences, as Halsema has shown. For example, digital identity favours temporal recency above sequential temporality. Moreover, while Ricoeur’s understanding of mimesis consists of the processes of prefiguration, configuration and refiguration, there has, recently, been what Nidesh Lawtoo calls *the mimetic turn*. That is, mimesis has come to be seen as an immanent force entangled in the social-technical system (and all the other assemblages these form part of). Lawtoo argues, moreover, that online avatars, fake news and other virtual ‘lives’ should be understood in terms of *hypermimesis.* I took this to also include digital death and mourning practices. Foremost I argued, following Stokes, that new ethical dilemmas have been provoked by this, for example in terms of digital remains. This also brings to light the aim of this study: to revisit philosophical questions of death and its place in the online environment and, specifically, to think about how we make sense of death and cultivate offline and online practices that allow for the transference of inter- and transgenerational memory, including our memory of mourning and remembrance.

Chapter 5

Conclusion

The aim of this study was to think about the relationship between death, meaning-making, and intergenerational memory and knowledge, as well as frameworks for dealing with the ways in which our mourning practices and understandings of death have been disrupted by digitisation and automation. To do so, I reflected philosophically on two interconnected aspects. First, I considered the increase in time spent online and the effects of automation and digitisation on our epistemological frameworks and practices. Second, I explored the implications of the changes brought about by this disruption for our understanding of death and the ways in which we make sense of it. Because Stiegler's oeuvre deals most comprehensively with the effect of the digital on many aspects of our lives, I drew chiefly on his work to frame my concerns theoretically. I also drew on other scholars who have thought about some of the sociopolitical implications of digitality such as Antoinette Rouvroy, Yuk Hui and Benjamin Bratton. With these theories in hand I turned to a number of well-known philosophers who have addressed death, in particular Heidegger, Husserl and Derrida, all of whom also influenced Stiegler's thought.

The main research objective of this study was to explore the impact of digital technology and automation on the synthesis of our epistemological practices and collective knowledge, with a particular focus on how the changes brought about by digital technology and automation affect meaning-making practices around death and intergenerational memory and knowledge transfer in what Stiegler calls the "age of disruption" (2019). It is important to remember, however, that Stiegler understands technology in terms of *technics*; that is, not simply as tools created by us, but as our creative capacities to extend ourselves in our relationships with others and the world, sometimes through tools. From this point of view, Heidegger's understanding of *Dasein* as a *Being-towards-death* takes on an entirely different character. That is, our anticipation of death becomes entangled in our creative processes of life, including processes of memory making and our inventions for extending our knowledge and memory beyond our own existence. This lends a new lens to Husserl's conception of time-consciousness. As I showed, although Stiegler bases his concepts of *primary* and *secondary retention* and *protention* on Husserl's conceptions of intentionality, recollection and anticipation, he inflects these technically with reference to *hypomnemata* – externalised or tertiary memory substitutes such as diaries and phones. It is precisely here that we encounter what Stiegler, in some of his works, calls a *pharmacological* situation: a moment that contains

the seeds to develop into either a poison or a cure. For Stiegler, the problem with digitisation is that it is changing faster than we can theorise these changes and thus incorporate them into the current epoch in such a way that they are wholesome. Instead, algorithmic processes are *disrupting* or short-circuiting the immediate protentions and retentions of lived, embodied experience, on the one hand, and psychic and social memory on the other.

Stiegler's concepts of *tertiary retention* and *protention* draw not only on Husserl; they are also based on Derrida's concept of the *supplement* – that which holds a place for something else, like a written word or concept holds the meaning for something like a tree perhaps, or an idea, or even a specific event in history. Tertiary protention likewise archives the traces of inter- and transgenerational memory for future access. It is, in some ways, the epistemological base for how we make sense of our *now.* It also helps us make sense of the past – of where we come from and why we have certain traditions, which include burial rites, mourning practices and other ways of dealing with death.

Traces, which implicate presence and absence simultaneously – the *spectral* – are also related to another of Derrida's concepts, namely *survivance*, which here denotes the deconstruction of the life–death binary. Thus, when we die and leave a journal, or a note, or almost any *trace* (it need not be physical because an externalised memory is invisible but present in the object) that indicates our existence at some time, we are *survived by the trace* which *spectrally haunts* others. However, it is exactly these traces that allow individuals to engage with the invisible living-dead and the present-absent traces that outlive their existence. This is what Derrida regards as *mourning*, and which I have also explained as a process of *transindividuation alongside the dead other through interactions with the traces they leave behind*.

But how can we understand these processes of transindividuation in our new societies of hyper-control, especially given that the 'normal' subjectivation processes are bypassed, as Rouvroy and Stiegler argue? How can we understand death and everything it implies when our identities are respatialised as numerised relations and data profiles? Consequently, there has been a *spatial refiguration* of our geographical, social, political and psychic worlds into what Benjamin Bratton has called 'The Stack': an amalgamation of the physical and its virtual representational spaces which are connected through the Interface layer. Mourning has, as a result, also been *translocated*, *polycontexturalised* and *mediatised*, but despite being extended to the virtual, virtually no new norms for mourning have been adopted. Instead, mourning, whether online or offline, has remained informed by traditional mourning norms and traces. This raises an important question: if mourning is guided by traditional norms, are our

practices of meaning-making also guided in this way? Do we still make sense of death as we did traditionally?

To address this question, I argued, following Derrida, that we need to identify and localise the remains of the dead in order to make sense of our loss. However, as Halsema and Faccennini hold, the digital fragments our identities and our digibodily remains are scattered over and throughout the virtual. Personal identity has, moreover, become hidden by the digital identity even though it is also inseparable from it. The digital identity can therefore be regarded as a *trace* that can *survive* us. It can, therefore, also form the basis of tertiary protention. Yet the algorithmic disruption and automation of narrative identity poses certain ethical problems for how we give an account of ourselves. This becomes especially clear when considering what Lawtoo has called *hypermimesis*: the double identity of the self and the virtual self which is complicated by recursive processes of mimesis, where it becomes difficult – if not impossible – to discern who is mimicking whom?

The point is, as I hope to have shown, that technical innovations have far-reaching consequences: political, social, intergenerational and psychic. These could be positive *if* we find ways to incorporate them into the current epoch in stabilising ways. What the digital has shown – at least for Stiegler – is that technology can radically alter our ways of knowing and sense-making, and this includes how we understand death, mourning, and loss more generally. We are, then, prompted to rethink our philosophies and theoretical frameworks, as well as their practical applications, and to update that which no longer holds in ways that do not already have predetermined outcomes. Accordingly, Stiegler prompts us to constantly consider the question of technics so that we may be in a better position to understand the effects of technology on historical consciousness and our ways for synthesising these into new models of meaning. Given this, I hope to have prompted the reader to think about the ethical implications we are left facing in terms of death and mourning.

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